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GOVERNMENT OF INDIA

MINISTRY OF RAILWAYS

(RAILWAY BOARD)

Report by the Railway Board

ON

INDIAN RAILWAYS

FOR

1947-8

Volume I

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PRINCIPAL STATISTICS OF RAILWAY OPERATIONS DURING 1947-8.

I.—*All Indian Railways.*

Items.	(Classes I, II and III) including E. P. and Assam Railways and N. G. of E. I. Railway. 1947-8.		Indian Government Railways (including E. P. and Assam Railways and N. G. of E. I. Railway.) 1947-8.	
Gross earnings Rs.	183·69		166·23	
Total Working expenses. (crores) Rs.	156·50		151·93	
Operating ratio . per cent.	85·20		91·40	
Number of passengers originating. (millions)	1,044·12		929·08	
Passenger miles . (millions)	33,644·34		30,086·47	
Earnings from carriage of passengers. (crores) Rs.	73·25		65·10	
Average earnings per passenger mile. Pies	4·18		4·15	
Freight tons originating. (millions)	73·46		65·68	
Freight ton miles (millions)	20,398·30		19,250·99	
Earnings from carriage of goods. (crores) Rs.	86·33		79·18	
Average earnings per freight ton mile. Pies	8·13		7·90	
Total train miles (millions)	157·01		139·68	
Gross earnings per train mile. Rs.	11·70		11·90	
Working expenses per train mile. Rs.	9·97		10·88	
Net earnings per train mile. Rs.	1·73		1·02	
Net earnings per mean mile worked. Rs.	7,989		5,440	

II.—*Indian Government Railways.*

(The figures include statistics of worked lines of Indian Government railways but exclude Indian Government portions worked by the Jodhpur and His Exalted Highness the Nizam's State Railways and N. W. and E. B. Railways/E. P. and Assam Railways.)

Items.	1938-39 Pre-war).	1939-40.	1944-45.	1935-46.	1946-47.	1947-48.	
Gross earnings (crores) Rs.	73·98	77·63	152·38	160·40	149·45	157·42	
Total Working expenses. (crores) Rs.	47·49	48·01	99·93	108·10	117·88	142·92	
Operating ratio . Per cent.	64·19	61·88	65·58	67·39	78·88	90·79	
Number of passengers originating. (millions)	355·26	349·05	597·02	675·39	752·03	902·26	
Passenger miles . (millions)	12,588·13	12,321·12	24,917·30	27,518·55	27,910·13	29,012·57	
Earnings from carriage of passengers. (crores) Rs.	20·41	20·10	49·82	56·45	57·46	62·23	
Average earnings per passenger mile. Pies	3·11	3·13	3·84	3·94	3·95	4·12	
Freight tons originating. (millions)	64·91	68·87	69·29	70·72	67·23	63·90	
Freight ton miles (millions)	17,056·49	18,381·46	21,175·36	21,975·45	20,688·95	18,962·55	
Earnings from carriage of goods. (crores) Rs.	48·52	52·16	77·21	78·81	72.65	75·34	
Average earnings per freight ton mile. Pies	5·46	5·45	7·00	6·89	6·74	7·63	
Total train miles (millions)	135·38	137·45	119·00	127·63	134·29	134·70	
Gross earnings per train mile. Rs.	5·46	5·65	12·81	12·57	11·13	11·69	
Working expenses per train mile. Rs.	3·51	3·50	8·40	8·47	8·78	10·61	
Net earnings per train mile. Rs.	1·96	2·15	4·41	4·10	2·35	1·08	
Net earnings per mean mile worked. Rs.	11,212	12,550	23,030	22,947	13,851	6,256	

INTRODUCTORY NOTE

1. The Railway Board's annual report on Indian Railways is prepared for the financial year, *i.e.*, from 1 April of one year to the 31 March of the year following.

Volume I is a narrative report dealing with the various aspects of railway working such as general administration, financial results, improvements in, and additions to, rolling-stock, commercial and operating methods, recruiting, training and welfare of staff and facilities provided for the convenience of the travelling public.

Volume II contains financial and statistical summaries and statements covering the main heads of capital and revenue accounts and the complete range of railway working.

2. For the information of those who are not conversant with the value of Indian currency and the units thereof, the following details are given :—

(*a*) One *lakh* equals one hundred thousand.

(*b*) One *crore* equals one hundred lakhs.

(*c*) One *anna* equals 1/16th of a rupee.

(*d*) One *pie* equals 1/12th of an anna.

The approximate value in English coinage of a rupee at the present rate of exchange is one shilling and six pence.

3. For statistical purposes, Indian railway systems are classified as follows :—

Class I.—Railways with gross earnings of not less than Rs. 50 lakhs a year.

Class II.—Railways with gross earnings of less than Rs. 50 lakhs a year, but exceeding Rs. 10 lakhs.

Class III.—Railways with gross earnings of not more than Rs. 10 lakhs a year.

A detailed list of the railways in each class will be found in Statement 5 (pages 43 to 47) of Volume II of this Report.

4. The figures of Class I Railways quoted in the Report refer to Indian Railways as they stand after partition. Since pre-partition accounts have not been closed owing to the accounts of the North Western and Bengal Assam Railways not being available, and the adjustments necessary in the accounts of the Indian Railways as they now stand cannot, in consequence, be made, the results are provisional to that extent.

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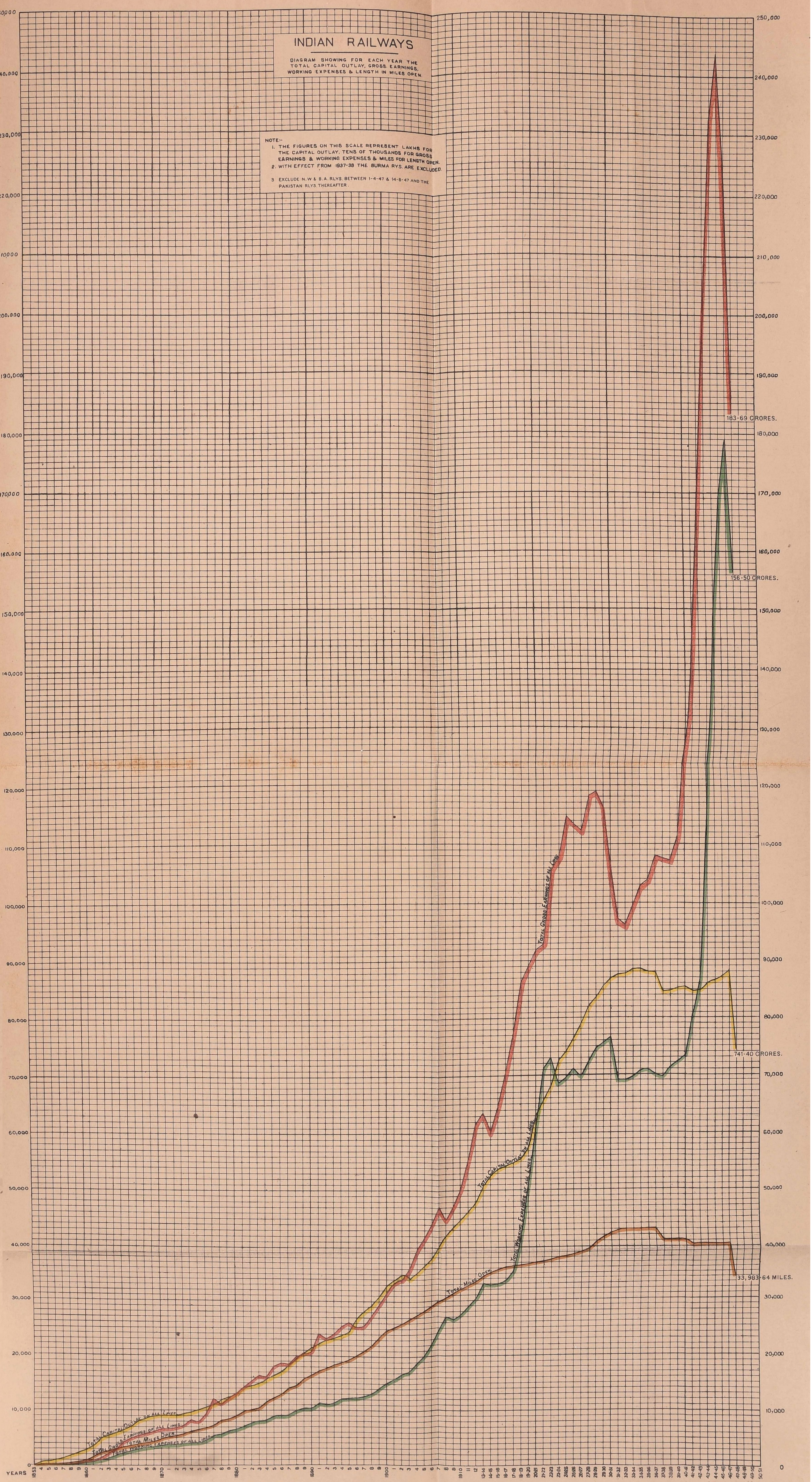

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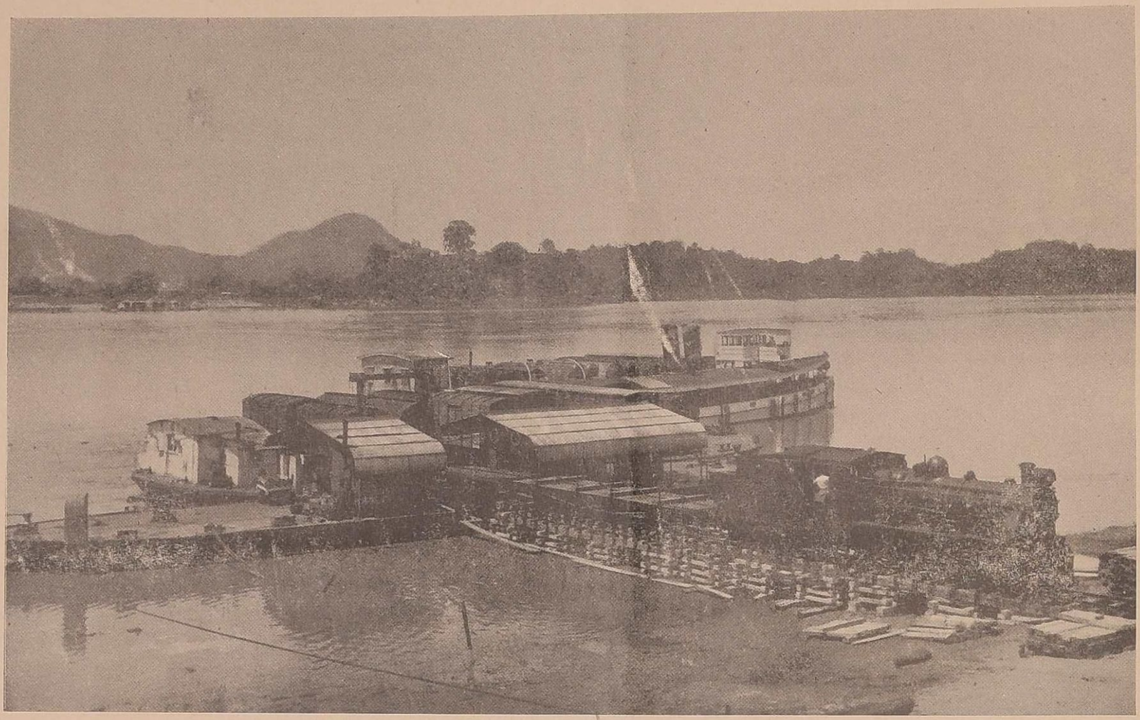


PLATE No. 13.—*Ferry working between Amingaon and Pandu.*

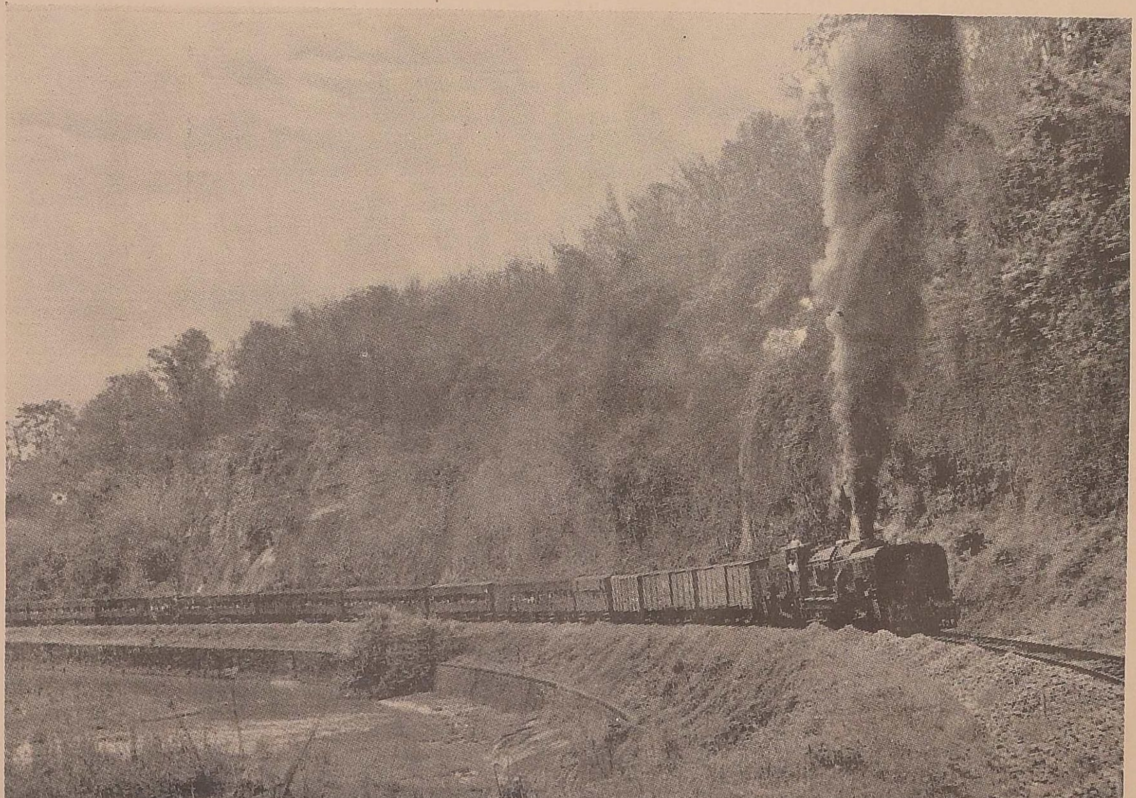


PLATE No. 14.—*A view of Hill Section between Badurpur and Lumding.*

CHAPTER I

GENERAL

1. General features of the year.—The year 1947-8 will be remembered as a memorable period for Indian Railways. That year witnessed the beginning of a new epoch for the country with the attainment of Independence. The division of the country into two Dominions led to the partitioning of the two railways, the North Western and the Bengal Assam. The part of the North Western falling in India has, since the 15 August 1947, been constituted as the Eastern Punjab Railway. The sections of the Bengal Assam in the Province of Assam have come to form the Assam Railway. Those in Western Bengal were partly merged in the East Indian and Oudh Tirhut Railways and the remaining section in the Province formed part of the Assam Railway. Another consequence of this was that the Assam Railway was cut off from other railways of India, thus necessitating the construction of a new link.

These profound changes on the political front led to repercussions on railway working, which were unprecedented in their character and consequences. Vast movements of population from either Dominion imposed an enormous strain on the limited resources of the railways, and this was accentuated by the opting of staff from each Dominion for service in the other. The country had not yet emerged from the effects of the war. The upsurge of consumer demands after the protracted war-time curtailment of civilian consumption, called for the maintenance at least, if not an increase, of industrial production and adequate transport to meet it. The success of the rationing system also depended on the ability of railways to move promptly and regularly large quantities of food to the areas of scarcity. That these important tasks had been accomplished by the Railways without any serious dislocation of the country's economy, is the most striking feature of railway operation during 1947-8.

There have been special difficulties in preparing the present report. The division of the North Western and the Bengal Assam Railways has led to a hiatus in the statistics of railway working during the year. The results of working and operating statistics of the two railways for the period 1 April to 14 August 1947, which should be included in a review of the whole financial year, are not included. The Report deals with the Indian Railways as they stand after partition for the entire financial year. These Railways include all the railways not affected by the partition. and the Assam and Eastern Punjab Railways from 15 August 1947 to 31 March 1948. The same procedure has had to be followed in dealing with the different aspects of railway working during the year. Whenever reference is made to Indian Railways during 1947-8, it should be understood that they refer to the railways as they stand after partition. Special attention has been drawn to this in the text and footnotes.

2. General Review of working.—To turn now to the principal features of railway working during the year. This was the second complete year of working after the end of the war. As compared with the preceding year there was a marked decline in military traffic, both in coaching and goods. The loss on military passenger traffic was, however, made up by the increase in civilian passengers, but the quantum of goods traffic registered a considerable decrease. There was also a recession in coaching in earnings other than passenger earnings, chiefly due to decline in parcels and luggage traffic. The earnings from passengers on all Indian Railway increased by a little over 7 per cent. and the earnings from goods traffic excluding the North Western, Bengal Assam, Eastern Punjab and Assam Railways also recorded increase of 3·1 per cent. The gross traffic receipts of Indian Government Railways amounted to Rs. 163·13 crores.

Some of the significant statistics relating to the traffic in 1947-8 for all Indian Railways, are given below along with the comparative figures for 1946-7 :—

PRINCIPAL STATISTICS OF WORKING ON INDIAN RAILWAYS.

Items.		1947-8.	*Excluding* E. P. and Assam and N. W. and B. A.		Percentage variations.
			1947-8.	1946-7.	
Number of passengers carried (in millions)		1,044·1	1,017·3	867·6	+17·3
Passenger miles (in millions)		33,644	32,570	31,793	+2·4
Earnings from passengers (in crores)	Rs.	73·25	70·38	65·80	+7·0
Average amount earned per passenger per mile	Pies.	4·18	4·15	3·97	+4·5
Average miles a passenger was carried	Miles.	32·2	32·0	36·6	—12·6
Freight tons carried (in millions)		73·5	71·7	75·2	—4·7
Net ton miles (in millions)		20,398	20,110	21,927	—8·3
Earnings from goods carried (in crores)	Rs.	86·33	82·48	80·02	+3·1
Average amount earned per ton per mile	Pies.	8·13	7·87	7·01	+12·3
Average mile a ton of goods was carried	Miles	278	281	292	—3·8

See Appx. A-Graphs Nos. (ii)—(vi).

It will be seen from the comparative figures that the number of passengers carried increased by 17·3 per cent., while total freight tons carried declined by 4·7 per cent. With less demand for transport for military purposes, it was possible to restore a number of passenger services during the year. It will, however, be noticed that while the number of passengers carried recorded a substantial increase there was only a slight increase in passenger miles. The decline in the average distance travelled per passenger explains the increase in the average earnings per mile per passenger, since, with a larger volume of short distance traffic, the depressing effect of telescopic scales on the average is less pronounced. But with effect from 1 January 1948, the telescopic scales ceased to exist and this must have partly helped to offset the effect of the telescopic scales in the first nine months of the year.

A comparison of the passenger mileage in 1938-9 with that of 1947-8, indicates the extent to which passenger traffic has grown since the war. On the Class I Railways, excluding Eastern Punjab and Assam Railways, the passenger miles in 1947-8 amounted to 31,076 million as compared with 13,456 million in 1938-9, an increase of 124·4 per rent. There have also come about certain significant changes in the distribution of passenger traffic between upper classes and third class. In 1938-9, third class passengers formed 97 per cent. and the third class passenger miles formed 90 per cent. of the total. In 1947-8, the third class passengers have fallen to 95 per cent. and their mileage to 92 per cent. of the total. It will be noticed from these figures that upper class travel has during the period from 1938-48 shown a large increase.

The volume of goods traffic during the year on the Class I railways, excluding the Bengal Assam, North Western, Eastern Punjab and Assam Railways measured in terms of net ton miles, showed a decline of 8·6 per cent. over the preceding year. Compared with 1938-9 however, there was an increase of over 11 per cent. There was an appreciable decline in the volume of military traffic handled, while other traffic continued to be subject to priority regulations. An analysis of the movements during the year shows that coal accounted for 45·9 per cent. of the total net ton miles and foodgrains, pulses and oilseeds together for 11·7 per cent. as compared with 46·5 per cent. and 10·4 per cent. in 1946-7. 'Other commodities' accounted for 42·4 per cent. of the traffic as compared with 43·1 per cent. in the preceding year. Thus the proportion of foodgrains, pulses and oilseeds, which is higher-rated group than coal but lower-rated than the group 'other commodities', increased. So the increase in the average amount earned per ton per mile from 6·87 pies in 1946-7 to 7·74 pies in 1947-8 is partly attributable to changes in the pattern traffic handled and partly to the enhancements in the rates for goods traffic detailed in Chapter IV—B. Commercial.

The character of the difficulties under which the Railways had to work during the year has already been indicated. The severe strain during the war years had told on the rolling stock, the maintenance and repairs of which were greatly hampered for want of spare parts. The percentage of engines under or awaiting repairs in Mechanical and Transportation workshops went up from 18·5 per cent. on the broad gauge and 17·4 per cent. on the metre gauge in 1946-7 to 20·2 per cent. and 19·9 per cent. respectively in 1947-8. The percentage of wagons under or awaiting repairs on the broad gauge increased from 6·14 to 7·50 and on the metre gauge from 4·66 to 5·87.

Punctuality of passenger trains showed a further deterioration on the broad gauge during the year mainly owing to the poor condition of locomotives and post-partition disturbances. On the metre gauge there was a general improvement.

The year under review saw the introduction of the further measures towards simplification of the rating structure on Indian Railways. With effect from January 1948, the classification of goods, and the schedules were revised. With the exception of four classes, all others were made telescopic class rates on continuous mileage over all the Indian Government Railways. The number of schedules was reduced to six standard schedules, and uneconomical transport avoided by requiring all traffic to be booked by the shortest routes. Certain alterations in rates were made, the most important being the enhancement of the surcharge on coal to 30 per cent. On the commercial side, another change of importance was the standardization of passenger fares.

3. Monsoon Conditions and Agricultural Situation, 1947.—The south-west monsoon started on the normal date, but was weak till about the middle of July, and improved thereafter. The total rainfall in July was normal or in excess, except in Baluchistan, North-West Frontier Province and West Rajputana, where it was in marked defect. After a brief lull, the monsoon strengthened in the middle of August and made up, to a large extent, the deficiencies of the previous months, especially in the United Provinces, the central parts of the country and north-east India except Orissa. The monsoon withdrew at the end of September. The north-east monsoon was feeble and rainfall during the period October-December was in defect, especially in the Madras Presidency and Mysore. Taking the year as a whole, the rainfall was in excess by 13 to 18 per cent. in the west Central India and south Hyderabad and deficient by 11 to 15 per cent. in Chota Nagpur, Bihar and Kashmir. It was normal in other parts of the country except in West Bengal, Orissa, Berar and the Central Provinces, data for which are not available.

Final forecast figures of area and yield of the principal crops for 1947-8 are not yet available, but the data published so far indicates a decrease in area under the main food crops, cotton and groundnut, and an increase under sugarcane and oilseeds. According to the information available at the time of writing, the variations in the acreage and yield, as compared with the previous year are shown below:—

(FORECAST FIGURES OF AREA AND YIELD.)

Inc. or dec. per cent. in 1947-8 over 1946-7.

	Acreage	*Yield*
Rice (f)	− 0·7	...
Wheat (f) . . .	−11·5	...
Ragi (Mandua) (F) . .	− 1·0	− 6·0
Sugarcane (F) . . .	+ 7·0	+ 7·0 (raw sugar, *gur*)
Sesamum (F) . . .	− 0·5	+ 3·0
Castor seed (F) . . .	+ 9·0	+ 9·0
Groundnut (F) . .	− 6·4	...
Rape and mustard (F) .	− 4·0	...
Linseed (f) . . .	+ 3·0	...
Cotton (f) . . .	− 8·0	...

f—first forecast. F. Final forecast.

4. Railways and the Legislature.

Railway Budgets.—Consequent on the partition of the country it was decided to present a new Railway Budget for the period 15 August 1947 to 31 March 1948 to the Constituent Assembly (Legislative). The budget was placed before the House on 20 November 1947. An important proposal in the budget was a general increase in passenger fares and freight rates on goods other than foodgrains and textiles, with effect from 1 January 1948. The general discussion on the proposals in the budget took place on 25 November 1947. The vote of the Assembly on the Demands for Grants was taken on 26 November 1947.

The discussion covered various subjects, the most important of which were the proposed increases in rates and fares, conditions of travel in third class, overcrowding in trains accentuated by ticketless travel, economy in working of railways, amenities for passengers, nationalization of railways, construction of locomotives in India, economy in the use of fuel, restoration of dismantled lines, rail-road co-ordination and the necessity for improving relations with labour.

One cut motion to discuss the reconstruction of lines dismantled during the war—Darwha Pusad Line—was talked out. Another motion to discuss the need for economy proposed a cut of Rs. 1 crore in Demand No. 9—Miscellaneous Expenses, but after discussion the Hon'ble Minister agreed to a reduction of Rs. 50 lakhs. Cut motions to discuss the following subjects, *viz.*, " overcrowding in trains ", " question of economy, efficiency and corruption " and " more adequate provisions for safeguarding the person and property of passengers ", were withdrawn after discussion.

The Railway Budget for 1948-9 as approved by the Standing Finance Committee for Railways was presented to the Constituent Assembly (Legislative) on 16 February 1948. The general discussion on the budget proposals took place in the House on 19 February 1948. The vote on the Demands for Grants was taken on 20, 23 and 24 February 1948.

The discussions covered a wide field. The question of the adequacy of the parliamentary machinery for closer scrutiny of railway matters and the need for building up a proper statistical establishment on the railways for compiling control figures to facilitate scrutiny of expenditure aroused the special interest of the Assembly. The other subjects which featured in the discussions were the standard of economy and efficiency on the railways, improvement in turn-round of wagons, division of capital liabilities between India and Pakistan, post-war development of railways, regrouping of railways, reform of the system of contract labour in railway collieries, manufacture of locomotives in India, encouragement of tourist traffic, provision of increased amenities for third class passengers, ticketless travel and corruption amongst railway servants.

There were 13 motions for token cuts in the Budget Demands. These raised discussions relating to " inefficiency in railway administration ", " passenger fares based on uneconomic rate structure ", " grievances of third class passengers ", " reorganization of railways ", " late running of trains ", " system of selection obtaining on the railways ", " manufacture of locomotives and machine tools ", " construction of new lines and restoration of dismantled lines ", " application of Pay Commission's recommendations to Members of the Railway Board and officers on the Railways ", " ground elevators and special facilities for working and movement of agricultural commodities, especially foodstuffs ", " loss on grainshops ", " prevention of thefts of railway fittings ", and " conditions prevailing on Oudh Tirhut Railway ". The motions were all withdrawn after discussion.

Out of total number of 2,356 questions asked in the Legislature during the year, 226 or about 10 per cent. related to the Ministry of Railways.

5. Standing Finance Committee for Railways.—The Committee met seven times during the year. As usual, it scrutinized Government's

proposals for Capital and Revenue Expenditure to be incurred in 1948-9, prior to their being placed before the Constituent Assembly. These proposals included *inter alia*, the purchase of locomotives and spare boilers from North America, notice of special purchase of the Darjeeling-Himalayan Railway Extensions, provision of a through direct route between Assam and the rest of India, doubling of lines between Budni-Barkhera Ghat on the Great Indian Peninsula Railway, and Kanpur*-Ekdil, East Indian Railway, a hospital for the Great Indian Peninsula and Bombay, Baroda and Central India Railways at Bombay, and the purchase of ferry steamers for the Oudh Tirhut Railway.

The Committee also discussed the memoranda on the lives adopted for railway assets for the purpose of contribution to the Depreciation Fund, the establishment of a Railway Rates Tribunal to replace the Railway Rates Advisory Committee and investments by Railways in road undertakings in the Provinces.

6. Central Advisory Council.—The Central Advisory Council for Railways met twice during the year and discussed a number of subjects, of which the more important ones were—

(*a*) the elimination of communal adjectives to the supply of drinking water at stations;

(*b*) the introduction of a Class II Service (Lower Gazetted) on the Madras and Southern Mahratta, Bombay, Baroda and Central India, Oudh Tirhut and Bengal Nagpur Railways;

(*c*) the abolition of the distinction between first and second class (European style) refreshment rooms; and

(*d*) the establishment of a new local advisory committee on the Bombay, Baroda and Central India Railway for the United Provinces and East Punjab including East Punjab States.

7. Local Railway Advisory Committees.—Notwithstanding the pressure of other important work on railways, meetings of local advisory committees were held as usual during the year. In all there were 58 meetings of these committees.

Among the important subjects of general interest discussed at the meetings of the local advisory committees, the following deserve mention:

(*a*) improvement in train services and train timings;

(*b*) catering—periodical revision of charges, and inspection by railway doctors of foodstuffs offered for sale to the travelling public;

(*c*) passengers travelling without tickets;

(*d*) additional facilities for the travelling public;

(*e*) post-war programme for 1948-9;

(*f*) prompt settlement of claims;

(*g*) lighting arrangements at stations;

(*h*) opening of train halts, city booking offices; and

(*i*) provision of fans and lights in inter and third class compartments.

8. Amenities for the public.—The improvements carried out during the year towards better amenities to the travelling public are referred to in some detail in Chapter VIII.

Despite vigorous efforts on the part of Railway Administrations, no marked improvement could be brought about on account of the refugee problem and the acute shortage of rolling-stock. The question of cleanliness of coaching stock and station premises continued to receive the attention of

*The name of 'CAWNPORE' has been changed to 'KANPUR'.

railways. Although the disturbances and the conditions consequent on refugee travel and their making a temporary habitation of stations affected for a time the standard of sanitation in some cases, appreciable improvement on the whole was noticeable. In addition to conductor guards and women inspectresses on certain railways, the question of appointing passenger guides from amongst men and women with training in social service in consultation with the various recognized social service institutions was examined and a scheme was finalized in the current year. These guides are expected to render every possible assistance to passengers, especially those travelling by third class.

9. Staff.—The relations with staff during this year are dealt with in greater detail elsewhere in this report. The outstanding event was the receipt of the report of the Central Pay Commission in April 1947 and the announcement in May 1947 of Government's decisions on the recommendations regarding pay and allowances. The All-India Railwaymen's Federation was afforded opportunities of discussing with the Railway Board points in connection with the Commission's recommendations as proposed to be given effect to by Government. The Federation made four minimum demands for acceptance by Government and the decisions of the latter on those demands were communicated to the Federation on 13 September 1947. Instructions were issued to railways on 1 November 1947 to enable them to implement the Central Pay Commission's recommendations regarding pay, compensatory allowance, house-rent allowance and dearness allowance in accordance with the Railway Services (Revision of Pay) Rules, 1947, promulgated on that date. Other recommendations of the Central Pay Commission were still under consideration at the close of the year.

The second important event was Mr. Justice Rajadhyaksha's award on the trade dispute between the nine Indian Government Railway Administrations and their respective workmen. This was received by Government on 15 May 1947, and it was published for general information in March 1948. It was under consideration by Government during the year.

The relations of the Government with the All-India Railwaymen's Federation continued to be cordial. The Railway Board held meetings with the Federation on 1 July 1947 and on 21 and 23 January 1948 and discussed such questions as retrenchment, confirmation of temporary staff and reinstatement of convicted personnel for political offences, besides subjects arising out of Central Pay Commission's recommendations and the Adjudicator's Award.

During the year there has been no major strike on the railways although a few lightning strikes of short duration took place. The number of man-days lost on account of strikes and disturbances was approximately 2·29 per cent. of the total number of man-days worked during the year.

The total number of staff of all grades employed on open line of Indian Government Railways excluding Bengal Assam, North Western, Assam and Eastern Punjab Railways increased from 700,024 on 31 March 1947 to 747,947 on 31 March 1948. The number of construction staff decreased from 5,381 to 4,038. The total cost of staff was Rs. 59,81,25,746 an increase of Rs. 10,56,59,017 over the preceding year. The increase in the number and cost of staff is due to the amalgamation of portions of the old Bengal Assam Railway with the East Indian and Oudh Tirhut Railways and the taking over of the Kanchrapara Workshops by the East Indian Railway due to partition of the country. The increase in cost is also partly due to implementation of the Pay Commission's recommendations.

At the close of the year there were in all 647 grainshops of which 495 were static and 152 mobile. The number of ration card holders who purchased foodstuffs, etc., at these shops at the close of the year was 862,000. There has been a reduction in the number of shops and the number of ration card holders as compared with the figures for the previous year due to partition.

The loss incurred in affording relief in kind to the staff was approximately Rs. 22·79 crores. This is equivalent to an average relief of about Rs. 22·4 per ration card holder per month as against Rs. 16·6 during the previous year.

The number of canteens providing light refreshments and in some cases, cooked meals to the staff at the bigger railway stations and workshops was increased from eight to 26 in the year under report.

As a result of the Central Pay Commission's recommendations, dearness allowance, for gazetted railway officers and non-gazetted railway servants drawing above Rs. 400 per mensem as pay, was fixed in accordance with the rates prescribed for other Central Government employees. In the case of the non-gazetted railway servants drawing a basic pay of Rs. 400 and below, the All-India Railwaymen's Federation exercised a collective option in favour of the existing rates of dearness allowance *plus* grainshop concessions in preference to the rates of dearness allowance prescribed for other Central Government employees.

During the year under review, staff numbering 3,495 rendered surplus on Indian Government Railways were reabsorbed in alternative employment, while 512 men were discharged.

10. Security Measures on Railways.—In paragraph 7 of the last report it was stated that by 1947, approximately 3,000 persons of all ranks were recruited for the Railway Protection Police in undivided Bengal, Bihar and the United Provinces. During 1947-8 the scheme was extended to Orissa and Assam as well, at the joint requests made by the Railway Administrations and the Provincial Governments concerned. By 1948, there were thus about 5,100 all ranks in this force on the Eastern Punjab, East Indian, Oudh Tirhut, Bengal Nagpur, Assam, Great Indian Peninsula, and Bombay, Baroda and Central India Railways.

The Railways (Emergency Provisions) Ordinance, 1946, a reference to which was made in paragraph 7 of the last report, lapsed on 14 June 1947, and the general opinion of the Railway Administrations was that the lapse of the ordinance had not produced any detrimental effect

With a view to ensuring the security of passengers and their belongings, improved devices for locking doors and windows of compartments, such as swing links or additional barrel bolts or throw-over safety catches, bars to windows of lavatories, etc., were introduced as additional safeguards against unlawful entry into compartments.

11. Publicity and Public Relations.—The reorganization of the Publicity and Public Relations activities received special attention during the year. The Central Publicity Bureau which, since 1926, had co-ordinated and directed railway publicity on the Indian Railways, was wound up soon after the outbreak of World War II. During the War there could be no question of publicity for stimulating traffic, and the publicity organizations of railways functioned independently, co-ordination between them being sought through the amalgamation of the residual staff of the Bureau with the Joint Publicity Office of the East Indian and Bengal Nagpur Railways at Calcutta.

On the termination of the war, the need was increasingly felt for building up goodwill between railways and their patrons. But the conditions were abnormal. The traffic offering far outstripped the capacity of the railways to handle it and there was consequently no scope for resuming the kind of work which used to be done before the war. It was obviously premature to organize publicity campaigns for attracting traffic. But on the other hand, it was more than ever necessary to canvas the fullest co-operation of the public in the efforts the railways were making to improve their service and to meet the increasing demands for rail traffic.

In January 1948, a Public Relations Branch under a Joint Director was created in the Railway Board's Office to co-ordinate the work of the Public Relations Offices at all railway headquarters. During the year, Pubic

Relations Officers were appointed on those railways which had no organization similar to those at Bombay and Calcutta. Towards the end of the financial year, there were Public Relations Officers at Calcutta, Bombay, Madras, Delhi, Gorakhpur and Pandu.

The Public Relations Branch maintains close contacts with the publicity organizations of the other departments of the Government of India, with the press and with the trading community. While constructive criticism finds its use in improving the service of the railways, unfair and uninformed criticisms are suitably answered when called for.

12. Complaints.—Further progress was made in dealing with complaints from the public and the volume of work handled by the Complaints Sections can be judged from the fact that no less than 14,500 complaints were dealt with by the Railway Administrations during the year ending 31 March 1948. In the office of the Railway Board itself, 2,250 complaints were received and dealt with.

The complaints covered a large number of subjects, such as, lack of facilities at stations, inadequate train services, lack of punctuality in train running, irregularity in the booking of luggage and the allotment of wagons, incivility towards the public, tracing of missing luggage and other consignments, and irregular practices by booking and reservation staff.

The Complaints Section had to be constantly on the alert to see that all complaints sent for investigation to the railways were properly investigated and suitable action taken on genuine complaints. The Complaints Section of the Railway Board had also to watch the progress of the cases in order to see that they are dealt with expeditiously, and to the satisfaction of the complainants. In a few cases, railways were not able to pursue the complaints, on account of the refusal or failure of complainants to furnish proof of the charges when confronted with enquiries.

Cases have also come to notice where signatories to the complaints were not traceable and complaints were false. Instructions have accordingly been issued to Railway Administrations to establish the identity of the complainants as a preliminary step, unless the investigating officers have reasons to believe that there is some truth in the complaints.

13. Damage caused to Railways by floods and cyclones.—Wide spread damage was caused during the year by heavy rain and floods. On the Bengal Nagpur Railway, owing to heavy rain, bridge No. 121-W, between Warsa and Brahmapuri on the Gondia-Nagbhir section in Nainpur District, was washed away on 1 September 1947, interrupting through communication for seven days from 1 to 7 September 1947. The approximate cost of temporary repairs was Rs. 41,000.

On the Bombay, Baroda and Central India Railway, the banks between Hansi and Satrod on Bhatinda-Rewari junction section were damaged owing to breaches on 1st September 1947. These were attended to at once and the situation was controlled. The actual cost of repairs amounted to Rs. 5,674.

On the Eastern Punjab Railway, extensive breaches occurred interrupting through communication during the period 15 August 1947 to 31 March 1948 on a large number of sections. The lines affected were Delhi-Ghaziabad, Ghaziabad-Ambala Cantonment, Ludhiana-Amritsar, Hussainiwala-Bhatinda, Jullundur City-Ferozepore Cantonment, Jullundur City-Nikodar, Phillaur-Lohiankhas, Ferozepore-Ludhiana, Amritsar-Dera Baba Nanak, Ferozepore City-Fazilka, Jullundur Cantonment-Hoshiarpur, Phagwara-Jaijon Doaba, Jullundur City-Mukerian sections and the Kangra Valley. A number of bridges were badly damaged and had to be rebuilt. The communal disturbances and refugee movements seriously hindered the work of repairing breaches, on account of inadequacy of labour. The total cost of repairing the damage caused by the floods was approximately Rs. 55 lakhs.

On the East Indian Railway, owing to heavy and continuous rains, breaches occurred in September 1947, between Lhaksar and Dausni and Lhaksar and Aithal and at many other places on Dehra Dun Branch. The cost of repairs was approximately Rs. 3,94,000.

On the Great Indian Peninsula Railway, the Dale Bridge near Bankheadi on Itarsi-Allahabad, main line section, on the Jubbulpore Division, was washed away owing to heavy rains during August 1947. Through communication remained interrupted for ten days, *i.e.*, from 1 August 1947 to 10 August 1947. The approximate cost of making temporary arrangements and the cost of rebuilding the bridge was estimated at Rs. 20,000 and Rs. 1,40,000 respectively.

On the Madras and Southern Mahratta Railway, exceptionally heavy rains in August 1947 damaged considerably the tracks between Nidamanuru and Dosapadu on the Bezwada-Masulipatam Branch and near Jalarpet. Communication was interrupted for two days. The estimated cost of repairing the damage amounted to about Rs. 76,850.

On the South Indian Railway also, owing to heavy rains in April 1947, the Vaigai river was in floods. A causeway between Paramakkudi and Parttibanur was submerged, and breaches occurred between Silaiman and Tiruppuvanam, and Muttanendal and Manamadura Junction. Communication was interrupted for 48 hours. The approximate cost of repairing the damage amounted to Rs. 42,000.

14. Acquisition of Company Railways by Government.—During the year, Government decided to buy the following lines:

(1) Matheran Hill Light Railway, a rebate-aided narrow gauge line, 12·61 miles in length, owned and worked by the Matheran Steam Light Tramway Company Limited, with effect from 1 April 1948.

(2) Pachora-Jamner Railway, a rebate-aided narrow gauge line, 34·62 miles in length, owned by the Pachora-Jamner Railway Company, and worked by the Great Indian Peninsula Railway, with effect from 1 April 1949.

(3) Darjeeling Himalayan Railway Extensions with effect from 20 October 1948. The Kishanganj Extension and the Teesta Valley Extension, both narrow gauge, are 66·35 and 29·09 miles in length, respectively. These lines are owned by the Darjeeling Himalayan Railway Extensions Company, which is rebate-aided, and are worked by the Darjeeling Himalayan Railway Company.*

15. Post-war Planning.—The partition of the country into two Dominions and the division of the available resources rendered it difficult to adhere to the Five-year Plan as originally contemplated. It was, therefore, decided that Railways should programme their works from year to year, and that only such works should be provided for in the annual works programmes, as could be carried out with the limited resources of man-power and materials. In the selection of schemes, priority was to be given to works required for improving train operation and removing bottlenecks.

The present position regarding certain of the items included in the Report for 1946-7 under Post-war Planning is briefly referred to below:—

(1) **Electrification of railways.**—The Railway Board have accepted the principle that a single system of generation and transmission for both railway and civil requirements should be aimed at wherever possible, and that Railways should undertake along with Provincial Governments concerned joint examination of schemes for the supply of electric power on a co-operative basis.

*It has since been decided to take over the Darjeeling Himalayan Railway with effect from 20 October 1948.

The following schemes of electrification were under consideration :—

(*a*) *Bombay, Baroda and Central India Railway.*—Virar to Sabarmati —length 275 miles. The preliminary report on the scheme prepared by the Bombay, Baroda and Central India Railway Administration has been referred to the consulting engineers. A co-operative scheme of electric generation and transmission has also been formulated by the railway engineers and electric grid engineers of the Government of Bombay, and this has been referred to the consulting engineers for their opinion.

(*b*) *Great Indian Peninsula Railway.*—The Railway Administration prepared a project report for the electrification of the following sections :—

	Miles
Igatpuri-Bhusawal	191
Poona-Dhond	47
Dhond-Manmad	146
Murla-Mankhurd	4
TOTAL	388

This scheme is also under reference with the consulting engineers.

(*c*) *East Indian Railway.*—The report of the consulting engineers on the electrification of the following sections has been received :—

	Miles
Howrah-Moghalsarai *viâ* Grand Chord	404·62
Howrah-Burdwan *viâ* Bandel	66·32
Tarakeswar Branch (Sehorapuli to Tarakeswar)	21·71
Calcutta Chord	9·50
Bandel-Naihati	5·75
Pradhankhanta-Patherdih Link	9·60

Further investigations are in hand in regard to the anticipated traffic load of 1955 and to the question of whether steam operation could carry the anticipated load. It is also necessary to prepare separate schemes for Suburban and Main Line electrification. This is being done.

(*d*) *South Indian Railway.*—The Railway Administration has prepared a project report on electrification of the following sections :—

	Miles
Tambaram-Villupuram	83
Chingleput-Arkonam	39
TOTAL	122

The financial implications of the schemes are under examination.

(*e*) *Calcutta Terminal Facilities.*—In the Report for 1946-7, reference was made to the Calcutta Terminal Facilities Committee, which was set up to investigate the need for reorganizing railway facilities in and around the city of Calcutta, involving electrification of certain sections. The report of the committee has been received. The main recommendations in the report are, electrification of the suburban services from Howrah and Sealdah up to Burdwan and Ranaghat respectively on the East Indian Railway, and from Howrah to Khargpur on the Bengal Nagpur Railway. The report has also recommended a circular electric railway for Calcutta.

The data on the basis of which the Committee's recommendations were made, however, require revision in the light of the latest developments that have taken place in West Bengal consequent on the partitioning of the country and the effect this has on the trade in and out of Calcutta. The provision of the kind of facilities which the Committee have considered necessary for Calcutta is essentially a subject for careful examination by the Provincial Government. Accordingly the matter has been referred to the West Bengal Government and their views on the recommendations have been called for.

(2) **Construction of new lines and replacement of lines dismantled during the War.**—The construction of the Rupar-Talaura Branch of the Eastern Punjab Railway and the restoration of the Bhimsen-Khairada Branch of the Great Indian Peninsula Railway, mentioned in the last report, were in progress. A length of 29·40 miles from Khairada to Sumerpur on the Bhimsen-Khairada Branch was opened to public traffic on 1 April 1947.

Two new constructions were sanctioned during the year, namely, the Barwadih-Sarnadih section, a length of 40 miles of the Barwadih-Chirimiri (Bijuri) Project, and the Assam Rail Link Project. The first of these will open up new coalfields and provide a valuable connection for movement of coal to the West, avoiding the already congested East Indian Railway main line. The second project seeks to provide a direct rail route to Assam, passing entirely through Indian territory. This was necessary because the partition of the country into two Dominions isolated the railway system in Assam from the rest of the country. The project involves 68·5 miles of conversion from narrow gauge to metre gauge and about 76·5 miles of new gauge construction in West Bengal and Assam.

Surveys of various other projects were also sanctioned during the year and reports on some of these were received and were under consideration of the Board.

As regards the problem of further development of railways, an overall review of the post-war railway programme for the whole country was made first by the Railway Board and subsequently by the Central Board of Transport. It has been decided to concentrate resources on twelve high priority projects, detailed below :—

Project	*Length in miles*
(1) India-Assam connection	145 miles M.G. (68·5 miles conversion —76·5 miles new construction).
(2) Barwadih-Chirimiri (Bijuri)	151 B.G.
(3) Barwadih-Manikpur	250 B.G.
(4) Umaria Branch	7 B.G.
(5) Champa Branch	26 B.G.
(6) Ghoradongri-Pathekhera Branch	12 B.G.
(7) Barwadih-Talcher	272 B.G.
(8) Kurla-Karjat	35 B.G.
(9) Extension of the Argada Branch	25 B.G.
(10) Kantabanji-Sambalpur	110 B.G.
(11) Jogbani-Kosi Dam	35 M.G.
(12) Rampur-Lalkua	38 M.G.

The projects, other than those included in this list, will be considered by the Central Board of Transport, province by province, in consultation with representatives of Provincial Government as co-opted members. Any project which the Central Board of Transport accepts as coming within the scope of the above-mentioned list will be added to the programme, and the projects, which are not urgent but considered necessary otherwise, will be put aside

for review as and when the position with regard to the overall resources improves, or priorities alter, or at the end of the quinquennium, whichever is earlier.

As regards restoration of dismantled lines, it was decided to carry out a further review of the various proposals made by Provincial Governments. This review would be done in the first instance by the Central Board of Transport, and later by a conference with representatives of Provincial Governments and, if necessary, with non-official advisers.

16. Railway Rates Advisory Committee.—Dr. Khwaja Sir Mohammed Noor, C.B.E., continued as President, and the post of Railway Member remained unfilled during the year. No cases were referred to the Committee during 1947-8.

17. Effect of Partition of Railways—on Traffic arrangements, routing and volume of traffic.—The effect of partition of Railways on traffic arrangements, routing and volume of traffic was generally felt by those railways adjacent to the old North Western and Bengal Assam Railways and those which exchanged considerable traffic with them.

As a result of the partition, the Sealdah Division of the Bengal Assam Railway was transferred to the East Indian Railway. For purposes of rating, the Sealdah Division was treated as a separate entity pending final arrangements as regards the integration of this portion as a part of the East Indian Railway. Traffic between the stations on the Pakistan Eastern Bengal Railway and the Sealdah Division was routed by the newly-opened junctions, *viz.*, *viâ* Banpur-Darsana and *viâ* Bongaon-Benapol. The consequences of the partition will be reflected in the traffic movements during 1948-9, particularly on account of the Inter-Dominion Customs Regulations.

As regards the repercussions of the partition of the Western area, *viz.*, the Punjab, it was noticed that the cotton traffic of the West Punjab, which used to move to Kanpur Textile Mills, registered a steep decline. This was due to the diversion of cotton from the Dominion of Pakistan (Western Punjab) to foreign countries, as the export price was higher than the ceiling price fixed in India. The cotton mills of Kanpur drew their supplies from Central Provinces and Berar.

18. Effect of Partition: on Power Position, Rolling-stock, and Workshop Capacity.—The partition resulted in an unprecedented traffic in the form of the movement of refugees. The locomotives and coaching stock of the Eastern Punjab Railway were put to most unorthodox use. To cope with the pressure they had to be used continuously and it was not possible to give any attention to their maintenance over long periods. This has led to a serious deterioration of the stock.

The partition left the Eastern Punjab Railway without any major workshop of its own. According to the terms of partition, it was agreed that locomotives, carriages and wagons belonging to the Eastern Punjab Railway should be given periodical and intermediate overhaul, and nominated repairs at Moghalpura workshops of the North Western Railway (Pakistan). It was further agreed that this workshop should also undertake manufacturing and/or reconditioning for the Eastern Punjab Railway for a period not extending beyond two years, of:

(*a*) parts and fittings of locomotives, carriages and wagons;

(*b*) machines, machine parts and tools.

It was also agreed that the Carriage and Wagon Workshop at Moghalpura should construct coaches for the Eastern Punjab Railway and also machine timber for their workshop at Kalka.

The North Western Railway has not so far been able to fulfil the terms of the agreement and to repair locomotives and coaches to the required

number. The quality of work is also much below standard. This has necessitated the distribution of repairs to other Indian Railway workshops which are already fully loaded. The result has been that it has not been possible to maintain the Eastern Punjab Railway stock, especially the coaching stock, to the desired standard.

The partition also left the Assam Railway without any important workshop. The agreement for mutual assistance reached with Pakistan had stated that the metre gauge carriages and wagons of the Assam Railway would be given periodical overhaul, intermediate overhaul, and casualty repairs at the Saidpur workshops of the Eastern Bengal Railway (Pakistan). It was also agreed that the Saidpur Workshops would load the metre gauge locomotives of the Assam Railway on broad gauge well-wagons for despatch to the Kanchrapara workshops of the East Indian Railway for repairs, and would also unload and place on line these locomotives when they returned to Saidpur from Kanchrapara duly repaired. The Saidpur workshops were also required to manufacture and/or recondition parts and fittings of carriages and wagons for the Assam Railway for a period not extending beyond two years.

Excessive delays occurred between the despatch of locomotives from the Assam Railway and their receipt in Kanchrapara, and also in their return journey from Kanchrapara. The question of setting up a new workshop for the Assam Railway is under investigation.

19. Effect of Partition: Staff shortages and surpluses in various categories: Workshop staff, Running staff.—On the partition of the country, the Railways were faced with a grave situation regarding staff. A majority of the running staff and workshop staff who were Muslims had to be relieved on opting for Pakistan. The staff who came over to India from the Pakistan areas, were but few in these categories, the majority being clerical staff. The problem of meeting the shortages and of absorbing the surplus staff was rendered all the more acute because of the communal disturbances which made the gradual releases and replacements impossible. Staff had, therefore, to be transferred wholesale. The resultant shortages in running staff, especially engine crews, proved serious to the Government Railways, at a time when millions of refugees had to be transported. The overall shortage of engine crews was about 18 per cent. of the pre-partition strength, while on certain railways, like the East Indian Railway, the shortages were over 45 per cent. The situation in the workshops was no less serious.

Certain emergency measures were immediately decided upon to make up the shortages. These were:

(1) direct recruitment of suitable experienced staff;

(2) intensive training of engine crew in sheds and training schools;

(3) re-employment of superannuated men;

(4) putting back to footplate duty loco-running staff who were working on other jobs;

(5) upgrading of staff as a stopgap arrangement; and

(6) considerable relaxation in the rules of promotion.

These measures enabled, by the end of 1947, to reduce the shortages to 9 per cent. or half the overall shortage in September 1947. Since then there has been steady improvement.

This was not all. The problem of absorbing the 126,000 staff, who came from Pakistan areas, had to be tackled. To co-ordinate their absorption Transfer Officers were appointed at Calcutta and Lahore. The

Transfer Officers at Lahore were subsequently shifted to Amritsar and thence to Ambala. There were also Assistant Transfer Officers at Bombay and Delhi when there were large arrivals in these two places. When the main work of absorbing the displaced employees was completed, the Transfer Offices were closed down, barring the one at Ambala which is still functioning.

Almost all staff have now been absorbed in existing vacancies, there being left only about 300. These are being kept on supernumerary posts and are being absorbed against working posts as and when vacancies arise. To facilitate the absorption of surplus staff, a ban had been imposed on confirmations in Class III and Class IV categories. Early in 1948, the position had improved to such an extent as to permit this ban to be lifted.

20. Effect of Partition: on the composition and movement of traffic.—Immediately following the partition, rail movement over the Eastern Punjab Railway practically came to a standstill, except for the transport of refugees. Soon, this was followed by the movement of large quantities of goods traffic from practically all over India for the relief and rehabilitation of refugees. It was only by about December 1947 that passenger train services could be restored more or less up to the normal on the Eastern Punjab Railway.

A change of more permanent character occurred with the altered status of Karachi after the partition. Karachi used to be the main supply port for the East Punjab, Rajputana, Delhi and part of the United Provinces. After partition, Bombay assumed the place of Karachi in this respect, and the traffic on the Bombay-Delhi route increased to such an extent as to severely strain the capacity of the railway line over several sections *en route*. The principal movements were in respect of imported foodgrains and petroleum.

Another significant change in the movement of traffic was with regard to coal traffic. Large quantities of coal, as much as about 400 wagons per day, were being made over daily by the East Indian Railway to the North Western Railway prior to partition. For some months, this figure was reduced to the barest requirements of the railway and the essential industries. Increased despatches to other areas had in consequence to be arranged in order to maintain the total despatches of coal from the coalfields.

21. Customs Examination at borders with Pakistan.—With effect from 1 March 1948, Pakistan was declared to be foreign territory for the purpose of levying customs duties. Land customs stations including several railway stations in India were established for the levy of land customs duties in the areas adjoining the frontiers of the Dominion of Pakistan. They are :

East Indian Railway.—Banpur, Bongaon Junction, Lalgola Ghat, Ranaghat Junction, Naihati, Titaghur, Ultadanga, Ballygunge, Salkea, Sealdah and Howrah

Oudh Tirhut Railway.—Radhikapur and Singhabad

Assam Railway.—Golakganj Junction and Maishasan

Eastern Punjab Railway.—Derababa Nanak, Atari, Khemkarn, Fazilka, Abohar and Ferozepore City.

Goods were allowed to pass by land from, and into, Pakistan only over the routes specified. Instructions were issued to the effect that all goods conveyed by goods and passenger trains would be subject to examination by Land Customs staff for payment of customs duty on dutiable goods and were not to be permitted to pass except by Land Customs officers posted at these stations. The immediate repercussions on the three railway administrations concerned were reported to be as stated below :

Jodhpur Railway.—Examination was limited at the outset to passengers' luggage, which was examined at Barmer by Customs authorities on all trains bound for Pakistan. Adequate train halts were provided for the purpose at Barmer.

East Indian Railway.—Booking of goods and coaching traffic (other than coal, passengers' luggage with owners, fish, vegetables, milk, indigenous milk products, fresh fruits and eggs) had to be limited to Chitpur and Sealdah only. There was no undue delay to consignments detained at border stations for customs examination, but Pakistan bound passenger trains were detained for 2½ hours and 1½ hours approximately, at Ranaghat and Bongaon respectively, and the question of reducing this detention had been taken up with the customs authorities.

Eastern Punjab Railway.—As the customs barriers were imposed at short notice, the immediate result was the hold-up of stock, congestion and stagnation of parcels traffic.

Loss to Railway property due to civil disturbances, violent strikes, etc.—On the Eastern Punjab Railway, property worth about Rs. 81,000 was damaged, and tools and plant costing Rs. 13,600 were lost during civil disturbances. At Kharagpur, on the Bengal Nagpur Railway, 36 shops were burnt down in the Railway Market area, of which ten belonged to the Railway Administration. The loss sustained by the Great Indian Peninsula Railway on account of civil disturbances and violent strikes amounted to Rs. 21,869.

22. Loss of man-days as a result of disturbances and strikes.—The total number of man-days lost as a result of strikes, and disturbances resulting in the staff being unable to come to work in the workshops of Indian Government Railways, was approximately 2·29 per cent. of the total number of man-days worked. The number of man-days worked during the year totalled 24,660,994 and the man-days lost owing to strikes and disturbances 565,545.

The information is by no means complete as the figures for the North Western and the Bengal Assam Railways for the period 1 April 1947 to 14 August 1947 have not been included.

The details of the total number of man-days worked during the year and the number of man-days lost in consequence of strikes and disturbances, by railways are summarized below.

Railways.		Total No. of man-days worked during 1947-8	No. of man-days lost during 1947 as a result of	
			Strikes	Disturbances resulting in the staff being unable to attend
Eastern Punjab Railway*		71,175	16·25	Information not available.
East Indian Railway		6,555,629	102,215·00	Do.
Bombay, Baroda & Central India Railway	B. G.	1,392,549	106,213·00	..
	M. G.	2,264,270	1,905·75	85,544·00
Madras & Southern Mahratta Railway		3,235,780	3,327·00	..
Assam Railway*		208,276	44·00	..
Great Indian Peninsula Railway		4,184,135	141,530·00	1,085·00
South India Railway		1,637,621	..	..
Bengal Nagpur Railway		3,720,471	2,299·00	113,492·75
Oudh Tirhut Railway		1,390,088	4,831·00	3,042·00
Total		24,660,994	362,381·00	203,163·75

* Information relates to the period from 15 August 1947 to 31 March 1948.

CHAPTER II

FINANCIAL RESULTS

23. Trade Review.—The improvement noticeable during the last three years in the foreign sea-borne trade of India was fully maintained in the year 1947-8. Imports and exports alike registered sharp increases as compared with 1946-7.

The total value of imports of foreign merchandise advanced from Rs. 288 crores in 1946-7 to Rs. 398 crores in 1947-8, representing an increase of Rs. 110 crores or 38 per cent. The increase was attributable mainly to larger imports of machinery of all kinds, cutlery, vehicles, dyes and colours, chemicals, drugs and medicines, cotton raw and waste, cotton yarn and manufactures, iron and steel and manufactures thereof, oils, paper, paste-board and stationery, grains, pulses and flour, electrical goods and apparatus, provisions and oilman stores, and wood and timber. There were, however, decreases under certain items, such as, metals other than iron and steel, and manufactures thereof, woollen yarn and manufactures, spices, raw silk and cocoons, and liquors.

The total value of exports also increased from Rs. 298 crores to Rs. 395 crores in 1947-8, an improvement of Rs. 97 crores or 33 per cent. over the previous year. The increase was mainly due to larger shipments of jute raw and waste, jute yarn and manufactures, tea, cotton raw and waste, oilseeds and spices, notwithstanding decreases in the exports of cotton yarn and manufactures, hides and skins, tanned or dressed, gums, resins and lac, woollen yarn and manufactures, fruits and vegetables, fish, raw wool, and raw hides and skins.

The total value of re-exports, however, dropped from Rs. 22 crores in 1946-7 to Rs. 8 crores only in 1947-8, a decline of Rs. 14 crores or 63 per cent. The decrease was caused by reduced shipments of raw hides and skins, oil and wool.

A.—FINANCIAL RESULTS OF INDIAN GOVERNMENT RAILWAYS (INCLUDING WORKED LINES).

24. Financial results of working.—In examining the financial results of the working of the Indian Government Railways during 1947-8, two factors have to be taken into account. One is the division of the North Western and Bengal Assam Railways following the partition, and the other, the two accounting periods falling within the year, namely, the pre-partition period from 1 April 1947 to 14 August 1947, and the post-partition period from 15 August 1947 to 31 March 1948. The financial results for 1947-8 summarized below refer in the case of the undivided railways to the entire year 1947-8 and in the case of the Eastern Punjab and Assam Railways to the period 15 August 1947 to 31 March 1948. Since the accounts for the pre-partition period have not been finally closed, the figures which combine the results for both the pre-partition and post-partition periods of 1947-8 should be regarded as provisional.

The gross traffic receipts amounted to Rs. 163·13 crores. The ordinary working expenses during the period were Rs. 139·83 crores, and the appropriation to the Depreciation Fund, Rs. 12·17 crores. Payments to worked lines as their share of net earnings amounted to Rs. 1·33 crores. The result of miscellaneous transactions was a net receipt of Rs. 3·24 crores. The Net Revenue for the year, therefore, came to Rs. 13·04 crores. The interest charges being Rs. 20·54 crores, there was a net loss of Rs. 7·50 crores.

Works expenditure during the year was Rs. 16·18 crores of which Rs. 9·33 crores was charged to Capital and Rs. 6·85 crores to the Depreciation Fund.

For the seven and a half months, from 15 August 1947 to 31 March 1948, the gross traffic receipts of Indian Government Railways amounted to Rs. 101 crores, and the ordinary working expenses to Rs. 84·79 crores. The appropriation to the Depreciation Reserve Fund was Rs. 6·81 crores, and payments to worked lines as their share of net earnings totalled Rs. 64 lakhs. The net miscellaneous receipts being Rs. 1·77 crores, the Net Revenue worked out to Rs. 10·53 crores. The interest charges for the period were Rs. 13·27 crores, and the net result was a loss of Rs. 2·74 crores.

Works expenditure during the seven months and a half ending 31 March 1948, amounted to Rs. 6·79 crores, of which the sum of Rs. 3·73 crores was charged to Capital and Rs. 3·06 crores to Depreciation Fund.

As stated above the accounts for the period from 1 April 1947 to 14 August 1947 have not yet been closed. The final figures of the opening balance of the various reserve funds on 15 August 1947 are also thus not available.

The balance in the Depreciation Reserve Fund on 1 April 1947 stood at Rs. 108·29 crores. The balance in the Funds as on 15 August 1947, which relates to Indian Railways as they stand after partition, has been taken at Rs. 92·18 crores. The appropriation made to the Fund for the period 15 August 1947 to 31 March 1948 was Rs. 6·81 crores. The amount withdrawn for renewals was Rs. 3·06 crores and the net accretion to the Fund during this period thus amounted to Rs. 3·75 crores. The closing balance in the Fund on 31 March 1948 was thus placed at Rs. 95·93 crores.

25. Traffic Receipts.—The total traffic receipts of the Indian Government Railways excluding worked lines, amounted during 1947-8 to Rs. 159·85 crores. The details are shown in the subjoined statement:—

	In crores of rupees.
Passenger earnings	66·12
Other coaching earnings	15·38
Goods earnings	81·45
Sundry earnings	3·44
Suspense	– 3·26
TOTAL	163·13
Less—Earnings of worked lines	3·28
Net traffic receipts	159·85

For purposes of comparison, the receipts of the Indian Government Railways, excluding the Assam and Eastern Punjab Railways, for 1946-7 and 1947-8 are given below. Even with the exclusion of the Assam and Eastern Punjab Railways, the figures are not strictly comparable, as certain portions of the Bengal Assam Railway have, since partition, been amalgamated with the East Indian and Oudh Tirhut Railways.

In crores of rupees.

	1946-7	**1947-8**
Passenger earnings	57·56	**63·26**
Other coaching earnings	14·27	**13·53**
Goods earnings	74·30	**77·53**
Sundry earnings	3·48	**3·26**
Suspense	– 0·22	**– 2·69**
TOTAL	149·39	**154·89**
Less—Earnings of worked lines	3·03	**3·06**
Net traffic receipts	146·36	**151·83**

It will be seen that there was an increase of Rs. 5·70 crores under passenger earnings and of Rs. 3·23 crores under goods. Other coaching earnings declined by Rs. 0·74 crore, due mainly to decreased earnings under parcels and luggage.

Taking all Class I Railways together (including the Eastern Punjab and Assam and those owned by Indian States), the distribution of passenger earnings by various classes in 1947-8 was as follows :—

(In lakhs of rupees.)

	1947-8
First class	2,38
Second class	5,97
Intermediate class	4,06
Third class	57,13
Total	69,54

The details of traffic earnings of individual railways are given in Statements Nos. 3 and 6, of Volume II of this Report. The working expenses of each railway are given in Statements Nos. 3 and 7 of Volume II of this Report.

26. Working Expenses.—The working expenses of each Railway are given in Statements Nos. 3 and 7 of Volume II of this Report.

27. Losses and Gains.—The statement below compares the net gain or loss of the year on each railway with that of the previous year :—

(In lakhs of rupees.)

Year.	Assam.	B. N.	B. B. & C. I.	E. I.	E. P.	G. I. P.	O. T.	M. & S. M.	S. I.
1946-7	—	—11	4,31	—3,45	—	5,83	—7	2,61	1,77
1947-8	**—1,22**	**—4,39**	**2,09**	**—8,18**	**—55**	**66**	**—5,75**	**3,25**	**3,80**

28. Railway Betterment Fund.—The Fund opened with a balance of Rs. 14,83 lakhs on 1 April 1947. The balance on 15 August 1947 was placed at Rs. 14,83 lakhs. While no appropriation was made during the year, the expenditure from the Fund after partition amounted to Rs. 59 lakhs. The interest, which is credited to the Fund itself, was Rs. 30 lakhs and the closing balance of the Fund on 31 March 1948 is placed at Rs. 14,54 lakhs.

29. Revision of Railway Separation Convention.—In March, 1947, the Legislative Assembly elected 11 non-official members to serve along with the Hon'ble the Transport Member, Hon'ble the Finance Member and the Financial Commissioner of Railways, on a Committee, called Railway Convention Committee 1947, to consider the revision of the Convention, adopted by the Legislative Assembly on 20 September 1924, on the Separation of Railway Finance from General Finance. The Committee had a preliminary meeting on 14 April 1947 at which they considered the draft terms of reference which the Government had framed and the future programme of the work, and decided that their next meeting should be held in New Delhi from 16 to 18 July 1947 to consider the Depreciation Fund and, if time permitted, the Betterment Fund and to fix the future programme of work of the Committee. But on the dissolution of the old Central Legislature on the introduction of the constitutional changes in 1947, the Committee became *functus officio*.

B.—GENERAL RESULTS OF WORKING OF ALL INDIAN RAILWAYS.

30. Analysis of Earnings.—During the year 1947-8, the total earnings of all Class I, II and III Railways falling in the Indian Union, including those in which the Government of India have no financial interest, amounted

to Rs. 183·69 crores, of which Rs. 86·33 crores, or 47·0 per cent., was from goods traffic, Rs. 73·25 crores, or 39·9 per cent., from passenger traffic, and Rs. 24·11 crores, or 13·1 per cent., from parcels, luggage and other miscellaneous sources of revenue.

These figures represent the earnings for the entire year of the railways not affected by the partition and for the period 15 August 1947 to 31 March 1948 of the Eastern Punjab and Assam Railways, and the portions of the *ex*-Bengal Assam Railway merged with the East Indian and Oudh Tirhut Railways with effect from 15 August 1947. The earnings for the period 1 April 1947 to 14 August 1947 of the Jodhpur-Hyderabad section, which since went to Pakistan, are also included.

31. Passenger Earnings.—The total passenger earnings during the year totalled Rs. 70·38 crores. Excluding the figures of the Bengal Assam, North Western, Eastern Punjab and Assam Railways, for purposes of comparison with 1946-7, the passenger earnings on all Indian Railways during 1947-8 increased by Rs. 4·58 crores to Rs. 70·38 crores, an increase of 6·97 per cent. The number of passengers carried increased by about 150 millions, an increase of 17·3 per cent. Passenger miles increased by 778 millions, representing an increase of about 2·45 per cent. Some of the striking variations in passenger traffic on individual railways are indicated below :—

Railways.	Variations as compared with 1946-7. Passengers carried. Number in millions.	Earnings in lakhs. Rs.
Bengal Nagpur	+ 2·0	– 39
Bombay, Baroda and Central India	+12·4	+ 56
East Indian	+66·7	+220
Great Indian Peninsula	+13·7	– 129
Madras and Southern Mahratta	+10·0	+ 30
South Indian	+35·5	+158
Oudh Tirhut	+10·6	+181

Detailed figures of the number of passengers carried, passenger miles and earnings are given in Summary X and Statements Nos. 12 and 36, of Volume II of this Report.

32. Goods Earnings.—The total goods earnings during the year amounted to Rs. 82·48 crores. Excluding the Assam and Eastern Punjab railways and as compared with the position during 1946-7, the earnings from goods traffic on all railways increased by Rs. 2·45 crores or 3·07 per cent. The tonnage of goods carried decreased by 3·5 million tons or about 4·69 per cent., and each ton was carried on an average to a distance of 280·5 miles instead of 291·5 miles last year. The net ton miles registered a decrease of 18·17 millions or 8·29 per cent. over last year.

The increased earnings were mainly derived from the following commodities: oil, fuel, rice in the husk, jowar and bajra, other grain, salt, sugar refined and unrefined, metallic ore, oil-seeds, petrol (in bulk), cotton raw unpressed, gur, jagree, molasses, jute raw, iron and steel wrought, petrol (in tins) and other commodities.

There were substantial decreases under fuel, rice not in the husk, wheat, marble and stone, wood unwrought, cement, cotton manufactured, fodder, fruits and vegetable fresh, jute manufactured, tobacco, provisions, vegetable oil, military traffic, live-stock and railway materials.

The principal variations in goods traffic on some railways are shown below :—

(Figures in thousands.)

Railways	Variations as compared with 1946-7. *Tons carried*
Bengal Nagpur	– 568
Bombay, Baroda and Central India	– 869
East Indian	– 2,710
Great Indian Peninsula	– 1,047
Madras and Southern Mahratta	– 245
Oudh Tirhut	– 126
South Indian	+ 391

Detailed statistics of goods traffic will be found in Summary X, Statements Nos. 13, 29 and 36 on pages 12—13, 100—11, 161—76, and 227—33 respectively of Volume II of this Report.

CHAPTER III

NEW CONSTRUCTIONS AND ENGINEERING WORKS

33. Capital Expenditure.—At the end of March 1948, the total capital-at-charge of all railways, including lines under construction, amounted to Rs. 741·40 crores, of which Rs. 667·43 crores was the capital-at-charge of Indian Government Railways, inclusive of the premia paid on the purchase of certain Companies' lines. The balance of Rs. 73·97 crores represented the capital raised by Indian States, Companies and District Boards.

The capital-at-charge of Indian Government Railways stated below includes the estimated capital on 15 August 1947 of Rs. 22·47 crores in respect of the Assam, Rs. 44·41 crores in respect of the Eastern Punjab, Rs. 15·80 crores in respect of the portions of the *ex* Bengal Assam Railway merged in the East Indian and Rs. 6·06 crores in respect of the Oudh Tirhut. The items entering into the capital-at-charge are shown below:—

	£
Liability and debt incurred in the purchase of railways .	131,164,798
Less liability and debt cancelled by the operation of annuities and sinking funds	23,756,284
Net amount outstanding	107,408,514*
	(Rs. in thousands.)
Direct expenditure by Government	5,24,21,27
Amount in sterling converted into rupees	1,43,21,58*
GRAND TOTAL .	6,67,42,85

By far the greater portion of this amount, namely, Rs. 6,65,31,41,000, is Government capital and only Rs. 2,11,44,000 is owned by Indian States, etc.

The total capital outlay on all railways during 1947-8 was Rs. 10·82 crores, of which Rs. 9·33 crores related to the undivided railways for the whole year, and the Eastern Punjab and Assam Railways for the period 15 August 1947 to 31 March 1948. Since as already stated in para. 24, the accounts for the period 1 April 1947 to 14 August 1947 have not yet been closed, the figures for this period included in the whole year's account are only provisional.

For the seven months and a half, from 15 August 1947 to 31 March 1948, the capital outlay on Indian Government Railways was Rs. 3·73 crores.

The distribution of the capital outlay in 1947-8 over the different Indian Government Railways is shown in the summary below:—

(In lakhs of rupees.)

Railway	Open Lines			New Lines			GRAND TOTAL
	Works, etc.	Rolling-stock	Total	Works, etc.	Rolling-stock	Total	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam	..	..	..	21	..	21	21
Eastern Punjab . . .	12	..	12	—1	..	—1	11
Bengal Nagpur . . .	34	1	35	1	..	1	36
Bombay, Baroda & Central India	57	2	59	..	..	..	59
East Indian	2,89	34	3,23	..	..	..	3,23
Great Indian Peninsula . .	1,37	1,43	2,80	7	..	7	2,87
Madras & Southern Mahratta .	8	10	18	..	..	..	18
South Indian . . .	39	3	42	..	..	..	42
Oudh Tirhut	54	..	54	..	..	..	54
Other Indian Railways . .	82	..	82	..	..	..	82
TOTAL .	7,12	1,93	9,05	28	..	28	9,33

* £ 2,575,000, £ 2,000,000, £ 1,500,000 and £ 1,000,000 representing share capital of the Great Indian Peninsula, the Bombay, Baroda and Central India, the Madras and Southern Mahratta and the South Indian Railways respectively (the first two amounts being paid off during the year 1925-6 and 1941-2 respectively, and the last two during the year 1944-5) have been converted at the appropriate average rate of exchange for those years and the balance £ 113,746,689 at the rate of 1 *s.* 6 *d.* to the rupee.

34. Mileage of lines opened or sanctioned in 1947-8.—Only two important schemes of new construction were sanctioned during the year, namely, the Barwadih-Sarnadih section on the East Indian and Assam Rail Link on the Oudh Tirhut and Assam Railways. The details are shown below :—

Railway	Name	Mileage under construction	Date of Sanction
East Indian	Barwadih-Sarnadih section of Barwadih-Chirimiri (Bijuri) Project.	41·28	26-4-47
Oudh Tirhut & Assam . .	Assam Rail Link Project . .	145·00	27-1-48
	TOTAL .	186·28	

Five new lines were opened to public traffic during the year, representing an addition of 102·54 miles. The new lines are :—

Railway	Name of line	Mileage	Date of opening
Great Indian Peninsula . .	Khairada Bharwa-Sumerpur section of Bhimsen-Khairada line.	29·40	1-4-47
Jamnagar-Dwarka . . .	Kanalus-Sika Branch . . .	9·03	1-4-47
Mewar State	Mavli Junction-Kheroda section of Mavli Junction, Bada Sadri line.	17·55	15-1-48
Nizam's State	Mudkhed-Hadgaon Road section of Mudkhed-Adilabad line.	24·26	1-8-47
Eastern Punjab . . .	Ruper to Anandpur-Sahib section of Ruper-Talaura line.*	22·30	2-2-48
	TOTAL .	102·54	

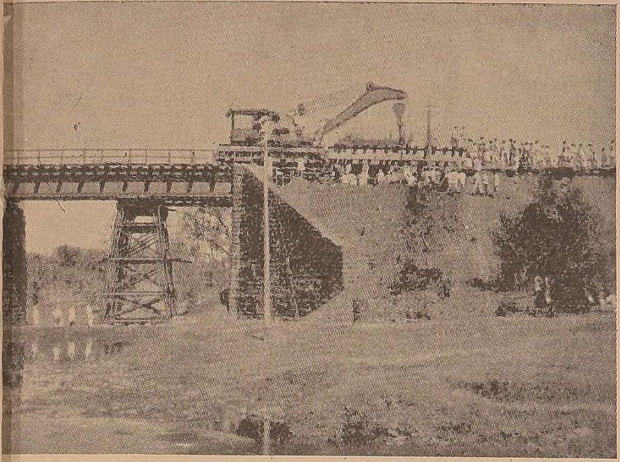
35. Lines under construction during 1947-8.—The following eight lines were under construction during the year :—

Railway	Name of the section	Mileage under construction
East Indian	Barwadih-Sarnadih section of Barwadih-Chirimiri (Bijuri) Project.	41·28
Eastern Punjab . . .	Rupar-Talaura†	34·81
Great Indian Peninsula . .	Bhimsen-Khairada (Restoration)† . .	76·42
Nizam's State . . .	Mudkhed-Adilabad†	100·69
Jaipur State	Sanganer-Malpura-Sawai Mangarh . .	75·66
Jamnagar-Dwarka . . .	Pipli-Gop	22·63
Mewar State	Mavli Junction-Bada-Sadri† . . .	51·00
Oudh Tirhut & Assam . .	Assam Rail Link	145·00

36. New surveys.—Eight surveys, aggregating about 1,000 miles, were sanctioned during the year. The most important of these are the Nagpur-Vizagapatam, which runs to a total length of 491 miles, and the

*For public carriage of goods traffic.

† Sections since opened to public traffic during the year 1947-8 are above in the preceding paragraph.



ATE No. 15.—*Removal of 33 ft. span used for erection of sleeper rib behind abutment; also showing steel trestle in position.*

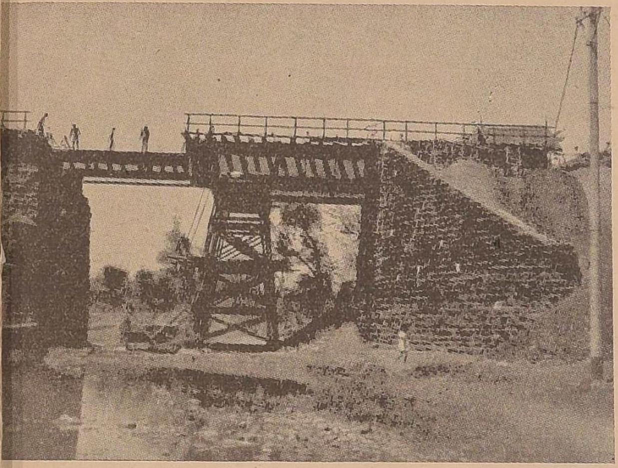


PLATE No. 16.—*Existing 60 ft. plate girders being pulled along skid rails for use as relieving span.*

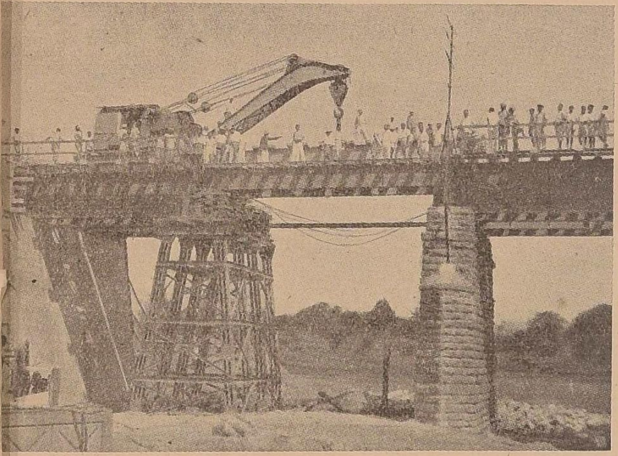
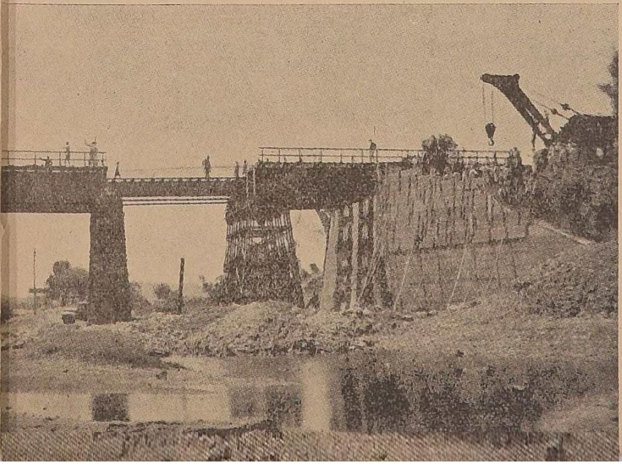


PLATE No. 17.—*33 ft. relieving span being removed after completion of abutment.*

PLATE No. 18.—*Original 60 ft. span being pulled back into final position with a crane lifting girders at one end and another pulling them from the other end.*

(NOTE.—*Wire ropes attached to the crane on the left and skid rails can be clearly seen.*)



CRACKS.

SANJAN BRIDGE

PLATE No. 19.—*Cracked masonry of old abutment to be dismantled and rebuilt (front view).*

PLATE No. 20.—*Cracked masonry of old abutment to be dismantled and rebuilt (rear view).*

Barwadih-Singrauli-Manikpur, a line extending to 250 miles. The other surveys may be seen from the following statement :—

Railway	Gauge	Mileage
Bombay, Baroda and Central India Railway.		
(1) Dharampur-Nasik Extension	5′6″	80·00
Bengal Nagpur Railway.		
(2) Champa Branch to serve Korba coalfields .	5′6″	26·00
(3) Umaria Branch to serve Korar coalfields .	5′6″	7·00
(4) Nagpur-Vizagapatam through route *viâ* Bailadila area, Jagadalpur, Jeypore, Padwa and Kottavalasa	5′6″	491·00
Eastern Punjab Railway.		
(5) Jagadhri-Paonta-Dubri, Traffic Reconnaissance	5′6″	40·00
East Indian Railway.		
(6) Khairadih-Girjapur, Reconnaissance and final location of alternative alignment *viâ* Bisrampur coalfield of Barwadih-Chirimiri (Bijuri) Project	5′6″	48·00
(7) Barwadih-Singrauli-Manikpur, Reconnaissance	5′6″	250·00
(8) Branch lines from Barwadih-Chirimiri (Bijuri) Project to serve Kurasia and Chirimiri coalfields	5′6″	35·50
(9) Ghoradongri-Pathekhera Branch, Preliminary survey	5′6″	11·50
	TOTAL	989·00

37. Lines closed during 1947-8.—No lines were closed during the year.

38. Engineering works.—Several important works were carried out or sanctioned during 1947-8 for augmenting line capacity, improving operational facilities and strengthening bridges, etc. The more important of the works are referred to below.

39. Open line improvements.

(1) *East Indian Railway.*—Additions and alterations to Bukhtiarpur station yard (Cost, Rs. 6,25,605) : The facilities at Bukhtiarpur which is a junction station between the East Indian Railway and the narrow gauge Bukhtiarpur-Bihar Railway, were inadequate to deal with the heavy inward and outward goods traffic. It was, therefore, decided to make necessary additions and alterations in the yard to cope with the increased traffic.

(2) Increased traffic facilities at Madhupur, East Indian Railway (Cost, Rs. 2,53,981) : The work was necessary on account of the diversion of the increased transport of coal *viâ* Main line, as the Grand Chord was working to its full capacity.

(3) Increased traffic facilities and extension of loops at Jamtara station (Cost, Rs. 2,57,901) : In order to cope with the increased traffic at this station, it was decided to take in hand the extension of loops and the passenger platform. The work also included the provision of a foot overbridge and ashpit for passenger trains.

(4) Doubling the line between Kanpur* and Ekdil (Cost, Rs. 1,40,09,182) : Industrial development on a considerable scale is taking place in Kanpur and the adjoining areas. It was, therefore, necessary to augment the capacity of the Kanpur-Tundla section to deal with the increased traffic. Double line already exists between Tundla and Ekdil, a distance of 64 miles, and the remaining section from Ekdil to Kanpur, 81 miles in length, is now being doubled.

* The name of 'Cawnpore' has been changed to 'Kanpur'.

(5) *Great Indian Peninsula Railway.*—Budni-Barkhera Ghat doubling (Cost, Rs. 1,29,76,927): The capacity of the line from Itarsi to Bhopal was seriously limited owing to the continual occupation of the Budni-Barkhera Ghat section by the banking engines, which had to be worked light from Barkhera to Budni. With a view to remove this bottleneck and to cope with the anticipated increase in coal traffic, it was decided to provide a new second line between Budni and Barkhera, a distance of about 16 miles. The second line will be laid on a new alignment with flatter grades, eliminating the necessity of banking assistance to ascending trains.

(6) *Madras and Southern Mahratta Railway.*—Extension of goods shed at Salt Cotaurs (Cost, Rs. 4,15,000): The facilities at Salt Cotaurs were insufficient for the traffic offered at the station bearing the same name. Additional accommodation was, therefore, required in the inward and outward goods sheds.

(7) *Oudh Tirhut Railway.*—Providing crossing stations, Jhilahai at mile 394·69 between Motiganj and Mankapur stations, and Baruachak at mile 404·08 between Gonda and Motiganj stations (Cost, Rs. 2,18,728): On the east of Gonda, one of the important junctions on the Oudh Tirhut Railway, there are only three intermediate stations over a distance of 36·5 miles. To improve operating conditions, it was necessary to break up two of these long block sections by providing intermediate crossing stations.

(8) Remodelling of Gorakhpur station yard (Cost, Rs. 17,64,037): The present yard at Gorakhpur was laid out in 1925. During the intervening years, there has been a considerable increase in the amount of traffic dealt with. The existing facilities were quite inadequate to deal with the increased traffic and it was, therefore, decided to remodel the yard.

(9) *South Indian Railway.*—Replacing the existing standard III single wire lower quadrant signals by double wire upper quadrant multiple aspect signals in Chingleput-Villupuram section (Cost, Rs. 6,35,535): The provision of this work was necessary in the interests of operating efficiency and to facilitate movement of traffic.

40. Important works sanctioned.

(1) *Assam Railway.*—Proposed hospital with staff quarters at Dibrugarh (Cost, Rs. 4,74,020): The nearest railway hospital to the town of Dibrugarh is situated about 237 miles away at Lumding, causing great inconvenience to railway staff. The construction of a new hospital with staff quarters was, therefore, undertaken at Dibrugarh.

(2) *Bengal Nagpur Railway.*—Reinforced concrete wharf for coal berth at Vizagapatam Harbour (Cost, Rs. 6,00,610): The timber piles and framing of the coal jetties were badly damaged by marine borers and torpedoes. It was, therefore, decided to construct a 400 ft. Reinforced Concrete continuous wharf instead.

(3) Water Supply at Dongargarh (Cost, Rs. 7,49,420): The sources of water supply at Dongargarh were inadequate both for domestic and locomotive purposes. It was, therefore, necessary to provide additional tanks and lay new pipe-lines to augment the water supply.

(4) Cement concrete flooring of shops in Khargpur Workshops (Cost, Rs. 7,28,191): Improvement of flooring in certain shops in the Khargpur Workshops, which had no proper flooring, was necessary to prevent dust blowing on to the machines and also to facilitate movement of materials either by hand or mechanical means.

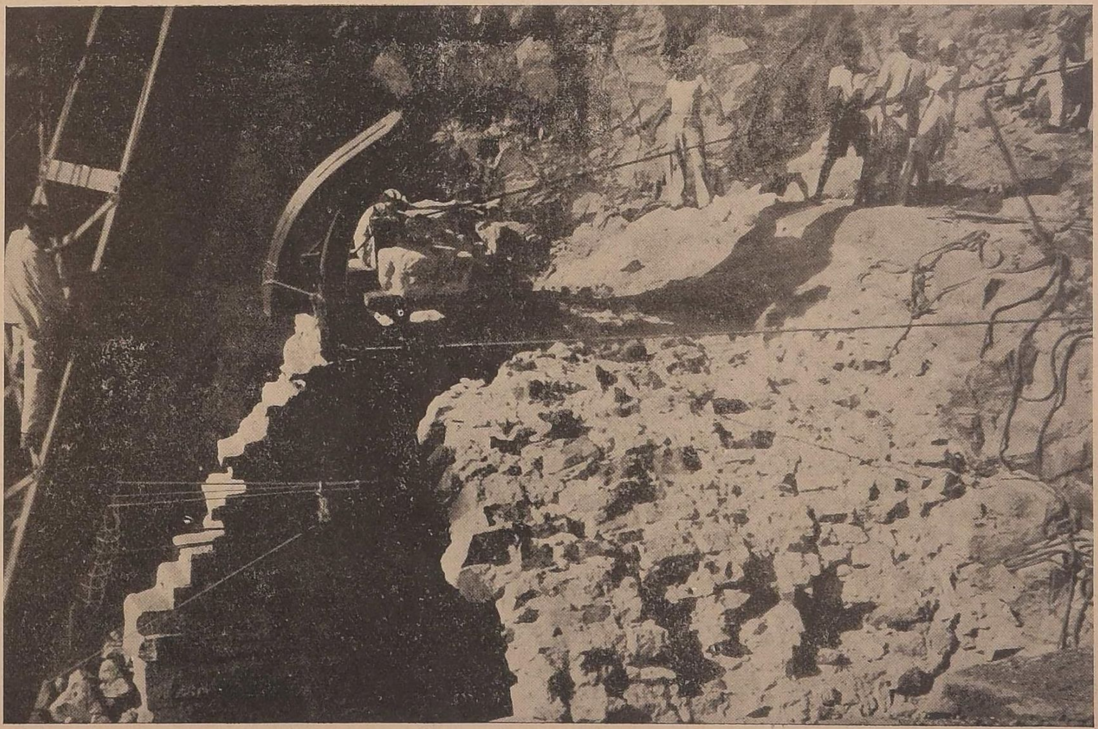
(5) *Madras and Southern Mahratta Railway.*—Improvement to watering arrangements at Bezwada (Cost, Rs. 3,40,000): The pumps and storage capacity for water at Bezwada, being inadequate to meet the present demands, it was decided to instal bigger pumps and additional storage tanks.

TUNNEL.

G. I. P. RAILWAY.

"DAYLIGHTING" OF TUNNEL NO. 8 ON THULL GHAT.
PLATE No. 21.—*View showing "Daylighting" of Tunnel nearly completed.*

"DAYLIGHTING" OF TUNNEL NO. 8 ON THULL GHAT.
PLATE No. 22.—*Arch in the Tunnel Lining was removed by means of a cradle operated by a crane. Picture shows cradle lifting up part of the Arch Lining.*



41. Bridge strengthening and protection programme.

(1) *Bengal Nagpur Railway.*—Rebuilding of bridges Nos. 2, 4 and 5 on the Howrah-Khargpur section (Cost, Rs. 2,14,215): These bridges situated between Tikapara and Ramrajatala stations on the Howrah-Bombay main line, showed signs of deterioration with extensive cracks in abutments which necessitated their rebuilding.

(2) *Madras and Southern Mahratta Railway.*—Regirdering and strengthening bridges for B.L. standard on Pakala sub-division (Cost, Rs. 16,40,000): The strengthening and regirdering of bridges on this sub-division was necessary to bring the line up to the required B. L. standard.

(3) *Bombay, Baroda and Central India Railway.*—Provision of a high level bridge over the Mahi river between Sevalia and Timba Branch on the Anand-Godhra Branch (Cost, Rs. 34,58,069): The existing low level (submersible) bridge over the Mahi river was constructed in 1882. The rail level of this bridge is 33′-9″ below the high flood level and during the monsoon seasons, floods in the river interrupt through communication on the Anand-Godhra section for a considerable period. It was, therefore, decided to replace the existing low level bridge by a high level bridge.

(4) *Eastern Punjab Railway.*—Providing a new bridge for the down line and rebuilding damaged up line, pier No. 5 of Bridge No. 20, at mile 247/10-13 between Chiheru and Jullundur Cantonment on Amritsar-Ludhiana section (Cost, Rs. 21,18,000): The up and down line bridges over the East Beyne river at mile 247/10-13 between Chiheru and Jullundur Cantonment were badly damaged by the unprecedented floods which occurred on 26 September 1947. The down line bridge suffered heavily and pier No. 5 of the up line bridge tilted over towards the down line and was badly cracked vertically and horizontally. The construction of a new single line bridge for the down line about 100 ft. upstream of the present up line bridge was undertaken along with a new pier No. 5 for the up line.

(5) *East Indian Railway.*—Strengthening of Phalgu Bridge between Gaya and Manpur (Cost, Rs. 5,69,112): The strengthening of girders on this bridge was necessary to bring them up to M. L. standard.

42. Permanent way renewals and welding of rail joints.

Bengal Nagpur Railway.—(*a*) Relaying 24 miles of 90 lb. B. S. rails on steel and/or cast iron plate sleepers with 90 lb. R. rails on wooden sleepers and bearing plates between Howrah and Khargpur including Thermit/Thermalite welding of down line between Machada and Kolaghat and up line between Bagnan and Machada (Cost, Rs. 16,98,800).

(*b*) Thermit/Thermalite welding of 90 lb. B. S. rails between Khat and Chachar, Nagpur District on the Bombay main line (Cost, Rs. 2,76,506).

East Indian Railway.—Thermalite welding of rails (Cost, Rs. 10,23,000): As the adoption of rail-welding ensures considerable saving, a large quantity of rails which, on account of the ends being battered, would otherwise have to be removed from the main line, is to be re-used after cropping the rail ends and welding the joints.

43. Locomotive Building Works Project.—In December 1946, the Standing Finance Committee for Railways approved of the construction of a workshop at Kanchrapara for the manufacture of 120 locomotives and 50 additional spare boilers per annum at an estimated cost of Rs. 11·40 crores. Preliminary arrangements for the supply and manufacture of the structural steel work and building materials were immediately set on foot, the plans for the layout of the shops were finalized, and orders for machines were placed. But consequent on the announcement in June 1947 of the proposed constitutional changes, it was felt that a workshop of this importance should not

be close to the frontier, and, pending the Boundary Commission's award, all construction work was suspended. The arrangements for the fabrication of steel work for the workshops and the procurement of machinery were, however, not modified. As per the Boundary Commission's award, the frontier was still quite close to Kanchrapara and therefore instructions were issued to the East Indian Railway for surveys to be carried out for the selection of a suitable site in the area between Asansol and Jhajha in West Bengal. After carefully investigating the natural resources, rail connections, etc., available at other alternative sites, it was decided that the new workshop should be located near Mihijam, not far from Asansol in West Bengal.

The project is now estimated to cost over Rs. 14 crores. When completed, the workshop will employ about 10,000 men on a single shift.

The work is in full progress. The target date of completion is 1950.

44. Wireless communications on railways.—The extension of wireless communication to all Indian Government Railways is now almost completed. Besides providing an additional channel of communication, it has afforded a much-needed relief to the heavily congested telegraph lines.

Equipment.—A cannibalization scheme has been planned to commence from 1949, to overcome the difficulties in procuring spare parts for the maintenance of the present medium-power wireless sets of army supply. The old sets will be gradually withdrawn from service on a programme basis and replaced by commercial sets of more modern design. This scheme provides for the replacement of all medium-power wireless transmitters on Indian Government Railways over a period of six years from 1949-50 to 1954-5, and includes the supply of 80 medium-power commercial transmitters at an estimated cost of about Rs. 22 lakhs.

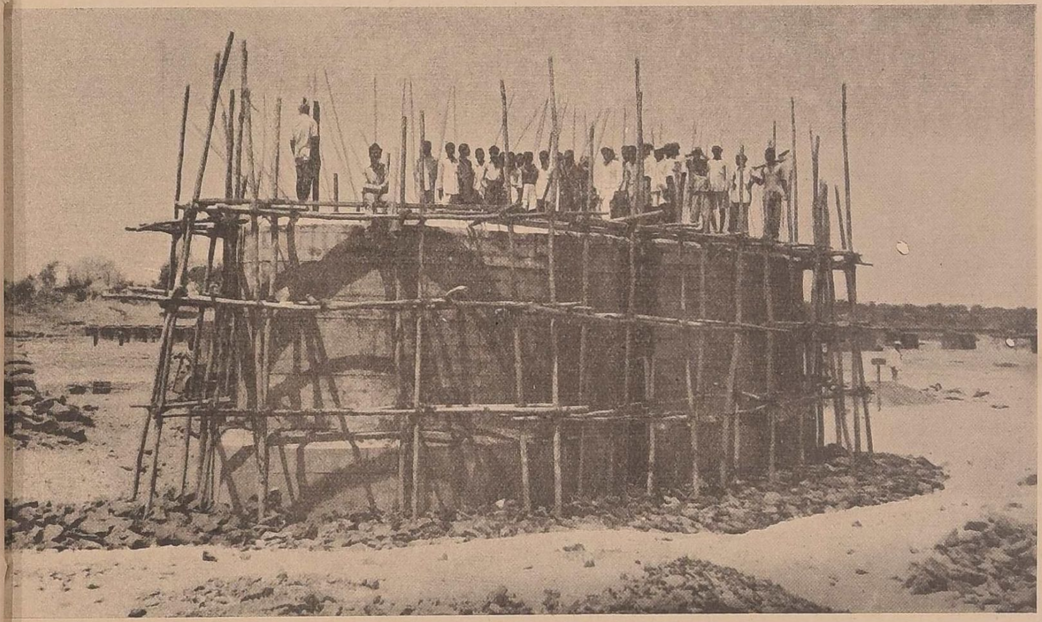
Current Developments.—With a view to improving communication between yard master, pointsmen, and the drivers of shunting locomotives in the marshalling yard at Moghalsarai on the East Indian Railway, arrangements have been made to conduct an experiment on point-to-point communication by installing a very high frequency radio set at Moghalsarai.

On the Great Indian Peninsula Railway, the use of radio telephony has been widely extended. The increase in the number of through direct wireless telegraphic links between distant stations has resulted in a quicker despatch of urgent telegrams to remote stations and has considerably reduced the congestion at repeating stations.

On partition, the Eastern Punjab Railway was practically left without any wireless communication. Arrangements were, therefore, immediately made to establish the new Delhi-Jullundur-Amritsar wireless link which proved highly useful in meeting very heavy traffic owing to movement of refugees from Western Pakistan. Another wireless link, between Amritsar-Gurdaspur-Pathankot, has proved to be of great value for military operations in Kashmir.

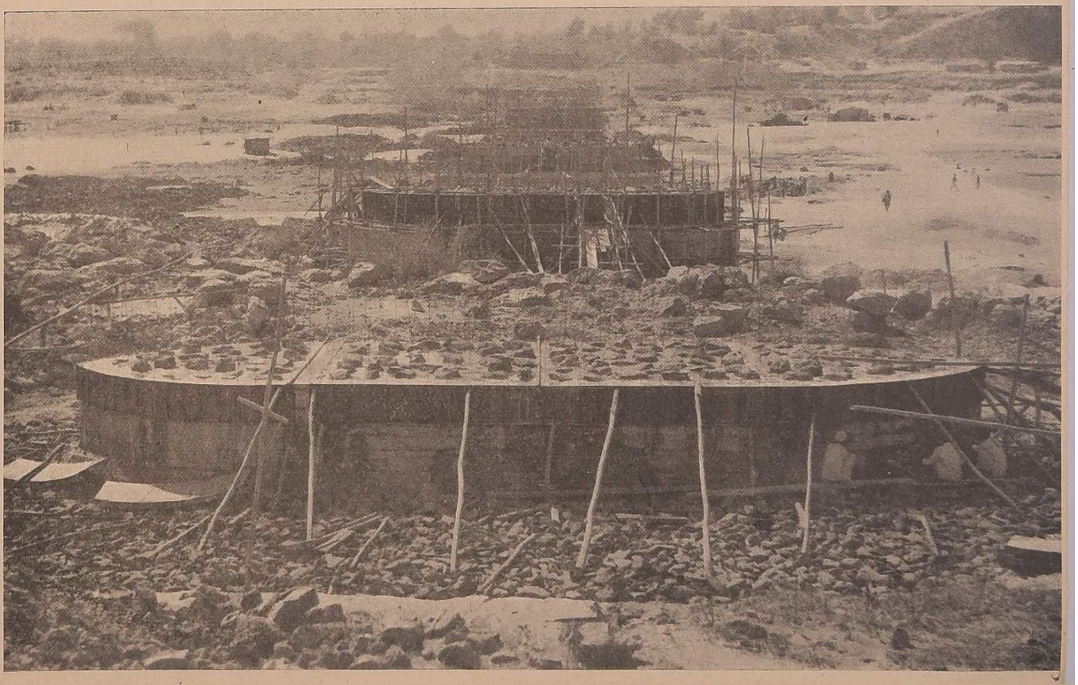
45. Improvements to line telecommunication on railways.—Further progress has been made in the installation of new Administrative Trunk Telephone circuits and Deputy Control and Section Control circuits, but full advantage therefrom has not yet been derived owing to some technical difficulties. It is expected that these difficulties will be shortly overcome. There is, however, no improvement in the teleprinter network on account of non-availability of equipment and trained staff.

PLATE No. 23.—*The Down Line Bridge over the East Beyne damaged by an unprecedented flood in September 1947.*



SEVALIA BRIDGE.

PLATE No. 24.—*A close view of one of the piers under construction.*



SEVALIA BRIDGE.

PLATE No. 25.—*View along the centre line of the new bridge showing various piers under construction.*

CHAPTER IV

TRANSPORTATION

A.—OPERATING.

46. Operating, General.—Widespread disturbances, particularly after partition, had severe repercussions on operation of the railways. For some time, there was a complete cessation of movement on the Eastern Punjab Railway, except for the very considerable movement in connection with evacuation of refugees. Altogether about four million refugees were moved by rail during the year. The dislocation affected the whole country nearly, though the south was left comparatively free. By the end of September 1947, all staff who opted for Pakistan were relieved of their duties. This resulted in severe shortages in certain categories of staff, chiefly engine crew, with the result that train services had to be heavily curtailed. By intensive training of the new staff, the shortage was made good, but as experience could only be gained by time, effects on movements continued to be felt during the succeeding months.

The demands for movement of goods traffic continued to outstrip the supply of wagons throughout the year, though all essential commodities were moved to requirements.

The partition had other effects as well. Prior to partition, Karachi used to be the port of supply for Delhi, East Punjab, Rajputana and a portion of the United Provinces. As a consequence of partition, Bombay became the principal port on the west coast in place of Karachi. The result was that the capacity over the Delhi-Mathura* section of the Great Indian Peninsula Railway was considerably strained and it became necessary to consider doubling of the track over certain portions of the section.

In an effort to curtail the time in loading and unloading of wagons, the free time allowed to the public for loading and unloading was reduced from nine to six hours of daylight with effect from 20 January 1948. A drive was also initiated to reduce detention to wagons in marshalling yards and at terminals, and to curtail transit time.

Towards the end of the year under review, arrangements were made to run special trains for the movement of certain essential commodities. Subsequently, this system of clearing traffic by special trains was extended considerably and covered a variety of commodities.

A drive was also initiated to improve the punctuality of passenger trains, which deteriorated considerably during the disturbances.

In view of the general overcrowding, and as the accommodation in military special trains was not being fully utilized, the running of such trains was discontinued at the close of the year. There were 378 coaches still on loan with the Ministry of Defence on 7 April 1948. The figure includes 82 coaches held by the North Western Railway (Pakistan), and efforts were being made by the Ministry of Defence to secure early return of these coaches.

47. Transport of coal.—The despatches of coal were maintained at a steady level during the year except during the three months, August-October 1947, when as a result of partition, a large number of experienced train crews from the East Indian and Great Indian Peninsula Railways left for Pakistan. It took some time before the loss of trained men could be made good.

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* The name of "Muttra" has been changed to Mathura".

In order to review constantly the rail transport position in Bengal and Bihar coalfields and to make recommendations for improvement, where necessary, the Ministry of Industry and Supply appointed a Coal Transport Advisory Committee in January 1948, representing the coal trade, labour, railways, shipping and the Coal Control Organization. The Committee brought together various interests and held regular meetings in Calcutta.

A number of schemes, both long term and short term, were under consideration for increasing the coal carrying capacity of railways from 26 million tons to 39 million tons in the course of ten years.

48. Movement of certain commodities by special trains.—With a view to ensuring the expeditious movement of essential commodities, a system of running special trains from certain important stations, when a particular commodity was offered in train loads to selected destinations, was introduced towards the close of the year. This system has, however, been in force for quite a long time in the case of movements of imported foodgrains.

On the representation of the United Provinces Government, special arrangements were made to move *gur* in train loads to certain specific sections in the direction of flow of empties, such as the Bombay-Ahmedabad Area and the coalfields on the East Indian Railway. These arrangements were later extended to movements for destinations short of these points. Similar arrangements were also made to clear cotton and cotton seeds from stations in the Central Provinces to Bombay, Delhi, Kanpur, etc.

49. Volume of traffic handled.*—As compared with the previous year, goods traffic expressed in ton miles declined by 8·55 per cent. to 19,598,213,000, whilst passenger traffic, stated in terms of passenger miles registered a still further increase of 2·34 per cent. to 31,075,610,000. As compared with the pre-war year 1938-9, the increase in passenger miles was 124·4 per cent., or well above twice the pre-war figure. The improvement in net ton miles over the pre-war level was 11·4 per cent. Detailed figures are given below. It should, however, be observed that these figures do not include the traffic moved by military special trains.

PASSENGER MILES AND NET TON MILES.

Class I Railways, excluding B. A., N. W., E. P., E. I. (Narrow Gauge) and Assam.

(Figures in thousands)

Particulars.	1938-9† (pre-war).	1946-7.	1947-8.	Inc. or dec. % over	
				1938-9.	1946-7.
Passenger miles	13,456,294	30,364,814	**31,075,610**	+124·4	+2·34
Net ton miles‡	17,587,450	21,429,735	**19,598,213**	+11·4	—8·55

50. Train Miles.—The train mileage operated to carry the traffic during the year amounted to 134,770,000, or a decrease of 511,000 or 0·38 per cent. as compared with 1946-7.

* In this and the following paragraphs, the total and comparative figures refer only to the Class I or the Indian Government Railways, excluding the two railways affected by the partition. To include the North Western on Bengal Assam for the period 1 April to 14 August 1947 and the Eastern Punjab and Assam for the period 15 August 1947 to 31 March 1948 would, besides vitiating comparability of the actuals and averages, necessitate in some cases the use of provisional figures. For these reasons, the systems concerned have been excluded in the tables and statements, where this course has been considered advisable.

† For comparative purposes, Bikaner State Railway which was not a Class I Railway during 1938-9, has been included.

‡ Excludes departmental.

TRAIN MILES OPERATED DURING 1947-8 COMPARED WITH 1938-9 AND 1946-7.

Class I Railways, excluding B. A., N. W., E. P., E. I. (Narrow Gauge) and Assam.

(Figures in thousands.)

Train miles	1938-9*.	1946-7.	**1947-8.**	Inc. or dec. % over 1938-9.	Inc. or dec. % over 1946-7.
Passenger (inc. proportion of mixed).† .	83,910	76,249	**79,291**	—5·50	+3·99
Goods (inc. proportion of mixed).‡ . .	53,522	59,032	**55,479**	+3·66	—6·02
TOTAL .	137,432	135,281	**134,770**	—1·94	—0·38

* For comparative purposes, Bikaner State Railway (not a Class I Railway during 1938-9) has been included.

† Includes the mileage of trains conveying passengers and of all other traffic booked at coaching rates, and empty mileage run by passenger and other coaching stock. It also includes mileage of electric locomotive and electric multiple unit trains as well as military specials but excludes departmental.

‡ Includes mileage of electric locomotive trains but excludes departmental.

Passenger train miles increased during the year by 3·99 per cent. to 79,291,000 against the increase of 2·34 per cent. in passenger miles. This indicates the little relief that could be given to overcrowding in passenger trains as compared with the previous year but only on the metre gauge railways. Goods train miles decreased to 55,479,000 or by 6·02 per cent. against decrease in the net ton mileage of 8·55 per cent. This disparity in the rate of decrease was partly due to a drop in the train load on the broad gauge from 443 tons in 1946-7 to 423 in 1947-8, this being chiefly due to variation in the nature of traffic carried involving greater proportion of light merchandise to total and less coal movements.

It is interesting to compare the performance during the year with that during the pre-war year 1938-9. As compared with 1938-9, the railways carried 124·4 per cent. more passenger traffic with 5·50 per cent. less passenger train services, whilst a volume of 11·4 per cent. more goods traffic was carried with an increase of only 3·66 per cent. in goods train miles.

Detailed figures of train miles of Class I Railways are given in Statements Nos. 17 and 32, pages 120-21 and 219-22, and those of Class II and III Railways in Statement No. 37, pages 234-38 of Volume II of this Report.

51. Shunting Miles.—In order to operate passenger and goods trains, considerable 'Other engine mileage ' of an unproductive nature, *viz.*, shunting, light and assisting mileage, has to be done. The ' Other engine mileage ' during 1947-8 was nearly 24 per cent. of the total engine miles (including departmental) against much the same percentage in 1946-7.

As shunting miles form the greater portion of the unproductive mileage, amounting to about 15 per cent. of the total engine miles, the following table has been prepared to show the ratio per 100 train miles on the passenger and goods services of Class I Railways during 1947-8 as compared with 1946-7. It will be observed that except in the case of metre gauge passenger service, there has been a disconcerting increase under all other headings.

SHUNTING MILEAGE DURING 1946-7 AND 1947-8.

Class I Railways, excluding B. A., N. W., E. P., and Assam.

Shunting miles per 100 train miles.		1946-7.	**1947-8.**	Inc. or dec. % over 1946-7
Passenger and proportion of mixed .	B. G.	5·07	**5·69**	+12·2
	M. G.	5·68	**5·21**	—8·27
Goods and proportion of mixed . .	B. G.	38·5	**40·8**	+5·97
	M. G.	41·1	**45·1**	+9·73

The main features of passenger and goods train operation on Class I Railways during the year are reviewed in the following paragraphs :—

52. Passenger Trains.—On the broad gauge, the slight increase in passenger miles as against the slight decrease in vehicle miles points to an increase in the number of passengers per vehicle between the two years. On the metre gauge, however, the position was reversed, there being only an increase of 1·12 per cent. in passenger miles as against a 4·96 per cent. increase in vehicle miles.

STATISTICS OF PASSENGER TRAFFIC.

Class I Railways, excluding B. A., N. W., E. P., and Assam.

(Figures in thousands.)

Particulars.	Broad gauge.		Inc. or dec. % over	Metre gauge.		Inc. or dec. % over
	1946-7.	**1947-8.**	1946-7.	1946-7.	**1947-8**	1946-7.
Passenger miles . . .	20,252,297	**20,837,418**	+2·89	9,759,293	**9,868,112**	+1·12
Coaching vehicle miles (inc. proportion of mixed).	793,574	**772,220**	−2·69	389,065	**408,367**	+4·96
Passenger train miles* (inc. proportion of mixed).	50,555	**51,401**	+1·67	24,168	**26,229**	+8·53

* Includes the mileage of trains conveying passengers and of all other traffic booked at coaching rates, and empty mileage run by passenger and other coaching stock. It also includes mileage of electric locomotives and electric multiple unit suburban trains, as well as military specials but excludes departmental.

53. Punctuality of passenger trains.—The following table shows the percentage of passenger trains not losing time to the total number of trains run on all Class I Railways, excluding Bengal Assam, North Western, Eastern Punjab and Assam during 1947-8 as compared with 1946-7.

PERCENTAGE OF PASSENGER AND MIXED TRAINS NOT LOSING TIME.

Year.	All trains (inc. electric multiple unit trains).	Mail and important through trains.	Mixed trains.	Suburban trains.	Other passenger trains.
	%	%	%	%	%
BROAD GAUGE.					
1946-7	70·3	53·7	67·3	72·7 79·9*	63·0
1947-8	**67·6**	**48·5**	**66 9**	**60·4 82·6***	**59·5**
METRE GAUGE.					
1946 7	67·7	43·2	70·4	88·3 94·5†	60·7
1947-8	**69·7**	**51·2**	**74·1**	**80·9 90·2†**	**62·8**

* Bombay, Baroda and Central India and Great Indian Peninsula Railways' electric multiple unit trains.

† South Indian Railway's electric multiple unit trains.

It will be noticed that on the broad gauge, except in the case of suburban electric multiple unit trains, there was a serious deterioration in the punctuality of passenger trains. The poor condition of locomotives and post-partition disturbances were the main causes for the decline. On the metre gauge, however, a general improvement is noticeable under different services.

54. Restoration of passenger train services.—Passenger train services to the extent of about 11,685 broad gauge and 5,409 metre and narrow gauge train miles daily were restored during the year. The passenger train mileage at the end of the year varied from 86·2 to 111·4 per cent. of the pre-war figures on the different railways.

The figures of restoration of passenger train services exclude those relating to the Assam and Jodhpur Railways. In the case of the Eastern Punjab Railway, figures show restoration made prior to the disturbances in August 1947 and subsequent months, when all regular passenger trains were cancelled for some time.

55. Refugee traffic.—Widespread disturbances followed the division of the country, specially in the Punjab. This resulted in large-scale movement eastwards of non-Muslim refugees from the West Punjab, North-West Frontier, Sind and other areas included in Western Pakistan, towards India, and Muslims from India towards West Pakistan. For some time, practically all traffic in the East Punjab was suspended. To enable existing resources—sorely depleted on account of the conditions then prevailing—being organized for the movement of refugees, even regular passenger train services had to be reduced on other Indian Railways to provide stock and engines for the refugee movements. About 2,877,000 refugees were moved by rail across the border from 27 August 1947 to 31 March 1948. This figure included 1,713,000 Muslims who moved from India to West Pakistan.

The transfer of population internally was also considerable, both in respect of refugees who had crossed the border by road and in respect of those moving from the first concentration depot to the final rehabilitation areas, or, in the case of Muslims, from other areas into concentration depots, from whence they were eventually evacuated to Pakistan. The number of refugees thus moving amounted to 1,201,512, of which 230,800 were Muslims. A very large number of non-Muslims crossed the border from Pakistan to India by road. Altogether about 4,078,780 refugees were moved by rail up to the end of March 1948.

56. Goods Trains.—Examination of the operation of goods train working during the year has to allow for the lack of comparable statistics, except for those systems not affected by partition. Thus considered, as compared with the performance on the broad gauge during the preceding year, the number of ton miles decreased by 8·47 per cent., wagon miles by 6·06 per cent. and goods train miles by 4·33 per cent., whilst on the metre gauge railways the corresponding decreases were 9·26 per cent., 11·3 per cent. and 10·5 per cent. respectively.

STATISTICS OF GOODS TRAFFIC.

Class I Railways, excluding B. A., N. W., E. P., and Assam.

(Figures in thousands.)

Goods and proportion of mixed.		1938-9* (pre-war).	1946-7.	1947-8.	Inc. or dec. % over. 1938-9.	Inc. or dec. % over. 1946-7.
Ton miles†	B.G.	14,989,461	18,562,237	**16,990,439**	+13·3	—8·47
	M.G.	2,534,065	2,788,831	**2,530,464**	—0·14	—9·26
Wagon miles	B.G.	1,659,292	1,787,446	**1,679,077**	+1·19	—6·06
	M.G.	531,715	512,307	**454,533**	—14·5	—11·3
Train miles	B.G.	37,060	41,827	**40,014**	+7·97	—4·33
	M.G.	15,297	16,012	**14,326**	—6·35	—10·5

* For comparative purposes, Bikaner State Railway which was not a Class I Railway at that time, has been included.

† Excludes departmental.

There has been a general decrease in the total ton mileage, vehicle mileage and train mileage during 1947-8.

57. Goods Train Speeds.—Compared with the previous year, the average speed of goods trains recorded a slight increase on the broad gauge from 10·4 miles per hour in 1946-7 to 10·5 miles in 1947-8. On the metre gauge there was a deterioration from 9·52 miles in 1946-7 to 9·35 miles in 1947-8.

58. Goods Train Loads.—The average net or freight load per goods train (steam) on the broad gauge decreased by 20 tons from 443 tons in 1946-7 to 423 tons in 1947-8. On the metre gauge there was a very slight increase from 174 tons in 1946-7 to 176 tons in 1947-8. The East Indian Railway accounted for a decrease of nearly 55 tons per goods train, *viz.*, from 527 tons in 1946-7 to 472 tons in 1947-8.

59. Stock usage.—On the broad gauge during the year there were 3,634 engines available for use, 1·37 per cent. more as compared with the previous year, but the total engine miles dropped by 1·42 per cent. from 120,614,000 to 118,902,000. The engine user consequently registered a slight decline of 2 per cent.

On the metre gauge, however, the overall mileage performance compared favourably with a slight increase in the number of engines available for use, namely, from 1,601 to 1,608. This was mainly because of the increased passenger train services on the metre gauge, the increase in train mileage being no less than 8·53 per cent. The stock usage results of Class I Railways during the year are summarized below :

STOCK USAGE ON CLASS I RAILWAYS.

(Excluding the B. A., N. W., E. P. and Assam.)

Particulars.	Broad.			Metre		
	1946-7	**1947-8**	Inc. or dec. % over 1946-7.	1946-7	**1947-8**	Inc. or dec. % over 1946-7.
Average no. of engines available for use.	3,585	**3,634**	+1·37	1,601	**1,608**	+0·44
Total engine miles (in thousands).	120,614	**118,902**	—1·42	50,949	**51,178**	+0·45
Engine miles per day per engine in use.	107	**105**	—1·87	107	**108**	+0·93

60. Engine usage.—Measured in terms of engine miles per day per engine on line (*i.e.*, inclusive of time occupied under repairs, etc.), the daily mileage on the broad gauge decreased from 75 in 1946-7 to 72 in 1947-8, and on the metre gauge from 73 in 1946-7 to 71 in 1947-8. The percentage of engines under or awaiting repairs in Mechanical and Transportation Workshops rose from 18·5 per cent. to 20·2 per cent. on the broad gauge and 17·4 per cent. to 19·9 per cent. on the metre gauge.

The downward trend of ton miles per locomotive day both for the locomotives on line and for the locomotives in effective use, noticeable in the previous years, continued during the year on both the broad and the metre gauges.

STATISTICS OF LOCOMOTIVE USAGE

Class I Railways, excluding B. A., N. W., E. P., and Assam.

Year.	Net ton miles.			
	Broad.		Metre.	
	Per goods locomotive day on line.	Per goods locomotive day in use.	Per goods locomotive day on line.	Per goods locomotive day in use.
1946-7	15,812	24,531	7,013	11,300
1947-8	**14,389**	**23,044**	**6,303**	**10,840**

Details of engine usage are given in Statement No. 22, pages 136-139 of Volume II of this Report.

61. Wagon usage.—There was, as compared with the previous year, an increase in the percentage of wagons under repairs on both gauges together with a decrease in the speed of goods trains on the metre gauge. This partly accounts for a decline in wagon miles per wagon day. This statistical average denotes the average number of miles run per wagon daily both loaded and empty journeys. On the broad gauge, the wagon mileage per wagon day was 34·3 in 1947-8 against 39·7 in 1946-7, and on the metre gauge it was 28·5 against 28·7 in 1946-7.

The percentage of wagons under or awaiting repairs in mechanical and transportation workshops and sick lines to the total goods stock on line increased from 6·14 in 1946-7 to 7·50 in 1947-8 for broad gauge wagons and from 4·66 in 1946-7 to 5·87 in 1947-8 for metre gauge wagons.

Net ton mileage per wagon day, which shows the number of miles run by a wagon, as well as the load carried by it decreased from 415 in 1946-7 to 351 in 1947-8 on the broad gauge, but on the metre gauge it recorded a slight increase from 161 in 1946-7 to 162 in 1947-8.

62. Wagons loaded with " smalls ".—On the broad gauge, there was a greater movement of " smalls " as compared with the previous year, with the result that the percentage of wagons loaded with " miscellaneous smalls " to the total goods traffic increased from 8·56 in 1946-7 to 9·16 in 1947-8. But on the metre gauge, the movement of " smalls " indicated a slight decrease, the number of wagons loaded under this category falling off by about 8 per cent. as compared with last year.

NUMBER OF WAGONS LOADED WITH ' SMALLS '.

Class I Railways, excluding B. A., N. W., E. P., and Assam.

—	Number.		Inc. or dec. % over 1946-7.	Percentage of the total number of wagons loaded.	
	1946-7.	**1947-8.**		1946-7.	**1947-8.**
Broad gauge	292,743	**296,073**	+1·14	8·56	**9·16**
Metre gauge	263,378	**241,758**	—8·21	14·8	**14·5**

63. Improvements in marshalling and other yards and their working.—Additions and alterations to the various existing marshalling yards were carried out to suit the requirements of traffic.

In order to reduce detentions in marshalling yards, arrangements were introduced to run complete train loads of traffic from one or more nearby stations to one or more stations on the same engine run for a large number of commodities.

Definite time-tables were laid down for goods trains on railways, on which such time-tables were not in force previously, so as to systematize, as far as possible, yard working and also to reduce journey time.

A directive was also given to the railways to ensure, as far as possible, that the average detention to through loaded traffic in any marshalling yard did not exceed 24 hours.

64. Wagon Position—Broad gauge Wagon Pool.—The number of public service wagons, in terms of four-wheelers, in use on all broad gauge railways at the end of the year, was 182,711, *i.e.*, 2,799 more than at the end of 1946-7. These figures represent holdings on railways both in India and Pakistan. According to the division of the stock of the North Western and Bengal Assam Railways systems between Pakistan and India, the North Western Railway (Pakistan) is to receive 22,615 and the Eastern Bengal Railway (Pakistan) 5,343 wagons. The balance of stock which came to the share of the Indian Dominion Railways was 19,339.

The total number of wagons loaded on all the Indian Railways after the 15 August 1947 was 2,068,532. Comparable figures for the previous year are not available due to partition of the Bengal Assam and North Western Railways. It appears, however, that there has been a decrease in the loading as compared with last year, but this would seem to be almost entirely due to the disturbed conditions in the country consequent on partition. Besides, due to the depletion of engine crew staff, the full complement of trains could not be run. Demand throughout the year was in excess of the available wagon supply.

The number of wagons temporarily out of service on broad gauge railways in the Indian Dominion varied between 9,844 and 11,980 since August 1947. Figures for the period prior to the partition date are not available.

65. Metre gauge wagon pool.—The number of public service wagons, in terms of four-wheelers, in use on all metre gauge railways at the end of the year was 62,104. These figures represent holdings on railways both in India and Pakistan. According to the provisional division of stock of the old Bengal Assam Railway between Pakistan and India, the Eastern Bengal Railway received 8,511 wagons and the balance that came to the Indian Dominion Railways was 5,498. This division refers only to stock other than W.D. Vehicles. The allocation of the W.D. wagons has not yet been finalized.

The total number of wagons loaded on all the Indian Railways after the 15 August 1947 was 801,022. Comparable figures for last year are not available owing to the partition of the Bengal Assam Railway. Generally speaking, here also there appears to have been a decrease in the loadings as compared with last year. The wagon position has been rendered extremely unsatisfactory, particularly by the presence in the Pool, of more than 16,000 War Department vehicles, a large percentage of which is unfit for service, and is the main contributory cause for the decline in loadings. Demands continued to exceed supply.

66. Neutral examination of interchange stock.—The staff working under the Director of Wagon Interchange continued to examine wagons interchanged between Railways at the following junctions :—

Broad gauge.	*Metre gauge.*
Ajni (Nagpur).	Badarpur.
Chheoki.	Kasganj.*
Ghaziabad.	Katihar.*
Khanalampura.	
New Delhi.	
East Dock Junction.	
Agra Cantonment.*	
Agra East Bank.*	
Waltair.*	
Katni Merwara.*	
Ujjain.*	
Bongaon.	
Lahore.	
Macleodganj Road.	
Naihati.	

Certain staff under the Director of Wagon Interchange were also posted at Moghalpura, Lillooah and Jhansi Workshops for the purpose of examining wagons after periodical overhaul.

* NOTE.—Neutral Control temporarily withdrawn from these junctions from August 1947 (Katihar from November 1947) to enable staff to be posted at Inter-Dominion junctions.

67. Coal supply and coal stock position.—The supply of coal to railways continued to cause anxiety during the various periods of the year. Steam coal stocks on Class I Railways, which had fallen to the record low level of 12·2 days consumption requirements early in January 1947, improved steadily thereafter to a more adequate level of 18·3 days requirements at the end of June 1947.

Unfortunately, this improvement could not be maintained on account of transport difficulties and the severe restrictions on booking of traffic consequent upon the disturbances in the West Punjab which affected the free flow of empties into the coalfields for coal loading. The steam coal reserves again declined to the level of 14·8 days requirements on 20 August 1947. Fresh disturbances again in the West Punjab, following the partition of the country, dislocated traffic on the Eastern Punjab Railway. These events combined with the severe breaches on this system later in September 1947, necessitated a heavy curtailment of traffic on that Railway, thus hampering movements of coal to the North Western Railway (Pakistan). Consignments of coal *en route* destined for both these Railways had, therefore, to be diverted to other railways in order to clear congestion. These diversions were mainly responsible for an improvement in the overall stock position on the Indian Government Railways to a level of 18·2 days consumption requirements on 20 October 1947.

This temporary improvement was followed by a serious set-back on account of the depletion and disorganization of the operating staff on the East Indian Railway. A large percentage of this staff who were Muslims, were released from service as they had opted for Pakistan. In particular, the temporary shortage of train crews seriously interfered with the movement of coal and affected supplies to all consumers with the result that the steam coal reserves on Indian Government Railways again declined, now to a level of 16·4 days on 20 November 1947. The supply position, however, improved thereafter to a level of 17·7 days requirements by the end of December 1947.

Another temporary set-back, caused by a general reduction in the allotment of wagons for coal loading in order to fit in with the reduced pilot capacity on the East Indian Railway, brought the stocks down to 16·0 days requirements by the end of January 1948.

Thereafter the position improved gradually, and the reserves rose to a level of 17·7 days requirements by the end of the year against 14·2 days at the beginning of 1947-8.

There was no appreciable improvement in the quality of coal supplied to railways during the year and they were, therefore, compelled to utilize larger quantities of inferior grades of coal, as during previous years, which naturally affected operational efficiency and fuel consumption.

68. Fuel Economy Measures.—The fuel economy measures continued to be vigorously pursued during the year to save coal to the maximum extent possible. The unsettled conditions in the country arising from general labour unrest, the communal disturbances in the West Punjab and elsewhere, the unusually heavy rains in several areas and the implementation of the schemes connected with the partition of the country—resulted in serious dislocation of traffic, thus adversely affecting operating efficiency and, in consequence, the drive for fuel economy. In addition to these difficulties, an attempt was made to extend the use of non-coking coals in place of coking coals, which were to be conserved for metallurgical purposes. The substitution of a different quality of coal combined with the employment of relatively inexperienced running staff led to a slight increase in the coal consumption as compared with the previous year.

The decision to change over to lower quality coal is recognized in the new locomotive designs which are proportioned specifically to burn moderate and low grades of non-coking coals. The first of the new series is a Pacific type locomotive designated the W. P. Sixteen prototypes of this class have been delivered in India and have been proved very satisfactory after dynamometer tests for mail and express service with inferior coals.

The Railway Board also have under consideration the possibility of introducing large-scale economies in fuel by the introduction of gas turbine locomotives as a long-term policy. Coal-burning gas turbine locomotives are still in the experimental stage and are expected, when commercially available, to use less than half the coal used by similar size steam locomotives. As a first step in this development, an order has been placed during the year for an experimental oil-burning gas turbine locomotive.

B.—COMMERCIAL.

69. Post-war Rating.

Certain important changes were introduced in the goods rates structure as a result of the scheme of post-war rating. These were, in brief :

(1) With effect from January 1948, the number of classes and schedules, the classification of certain commodities, the bases of charge and the method of arriving at the chargeable rate were revised. Special classes, A, B and C, were introduced. Class rates 4 and above and Special Classes A and B were introduced as telescopic class rates applicable on continuous mileage over all the Indian Government Railways and certain other railways. Special Class C and Classes 1 to 3 continued to be flat rates. All schedules, exceptional class rates and indefinite class rates for commodities falling under Special Classes A and B, and Classes 4 and above were withdrawn. Twenty-two Conference Schedules applicable over the railways as a whole were assimilated into six standard schedules applicable to certain commodities.

(2) The minimum distance for charge was raised from 10 to 20 miles.

(3) With a view to achieving simplification of rating and avoiding uneconomical transportation, it was decided that all traffic should be booked by the shortest route—determined by the addition of 75 miles for each transhipment—but charged at the rates applicable by the cheapest route unless otherwise elected by the sender.

70. Alteration in rates, goods traffic.—As a measure of enhancing revenues to meet the increased cost of operation and also to achieve rationalization and simplification to the fullest extent possible under existing conditions, the following changes were made in the rates for goods traffic :—

(1) During the earlier part of the year, definite special rates for the majority of commodities were enhanced by Re. 0-2-8 per maund or 20 per cent., whichever was less, while in other cases these were raised by 20 and 25 per cent. without any monetary limit. As regards indefinite special rates the corresponding enhancements were to the extent of Re. 0-1-4 per maund or 20 per cent., whichever worked out cheaper, for the majority of commodities, while in other cases the enhancements were restricted to 20 and 25 per cent. without any monetary limit. In respect of commodities classified Classes 4 and above, special rates were enhanced by $33\frac{1}{3}$ per cent. without any monetary limit both for definite and indefinite special rates.

(2) Low exceptional class rates for certain commodities were withdrawn on certain railways, resulting in the applicability of the ordinary class rates.

(3) With effect from January 1948, the surcharge on coal, coke and patent fuel was enhanced from 20 per cent. of the total freight to 30 per cent. The terminal and transhipment charges leviable on coal were also enhanced by 50 per cent.

(4) The rebate and refund of increase in freight charges granted on coal and coke booked to Calcutta for shipment to foreign countries and coastwise movements were withdrawn with effect from 1 December 1947.

(5) Schedule C/IB, OR; CCL for Iron and Steel Division 'B' when booked from Burnpore and Tatanagar and Schedule C/M, OR; CCL for Iron or Steel Division 'C' when booked from Bisco, Burnpore and Tatanagar were introduced over the Bengal Nagpur Railway.

(6) A terminal charge of 4 pies per maund was attached to some schedule rates over the Bengal Nagpur Railway to which no terminal was previously applied.

(7) Station-to-station wagon rates for sugarcane in open wagons from Elamanur, Trichinopoly goods yard, Sankaridrug and McDonald's Choultry to Pugalpur were quoted over South Indian Railway.

(8) Special rates for salt from Pachpadra Salt Depot to various stations were enhanced.

71. Alterations in fares, Passenger Traffic.—With effect from 1 January 1948 the following changes were introduced over all Indian Government Railways:

(1) *Bases of fares.*—The bases of passenger fares were standardized as follows:—

	Pies per mile.
First class	30·0
Second class	16·0
Inter. class (mail or express)	9·0
Inter. class (ordinary)	7·5
Third class (mail or express)	5·0
Third class (ordinary)	4·0

(2) *Monthly season tickets*—(*a*) *Suburban.*—Charges for monthly season tickets inclusive of increased charge and surcharge, where leviable, were increased by the following percentages, subject to a maximum of 24 single journey mail fares:

	per cent.
First class	50
Second class	25
Inter. class	18·75
Third class	12·5

(*b*) *Non-suburban.*—Charges for non-suburban monthly season tickets were standardized, at 24 single journey fares (mail fares being charged in the case of inter. and third classes).

(3) The clerkage charge in connection with refund on tickets allowed at stations was enhanced from one to two annas per ticket.

(4) The price of platform ticket was raised to two annas.

(5) The increased charge at the rate of one anna per rupee applicable to passenger fares above Re. 1 and the surcharge at the rate of one anna per rupee on passenger fares above Re. 0-8-0 inclusive of increased charge were withdrawn.

The concession of return tickets in any class, available for two months on payment of single journey fares, was introduced with effect from 15 October 1947 for persons attending All India Conferences of a social or educational kind, supported by the Government of India.

The concession of travelling first and second class on payment of half the fare of the class occupied was allowed to five members of the Indo-British Goodwill Mission during their tour in India.

The concession appearing under Serial No. 1 of Annexure A to Rule III of Indian Railways Conference Association Coaching Tariff, No. 14, was allowed to the members of the Shakespearian Dramatic Company during their tour in India.

With effect from 10 November 1947 gift parcels for refugees marked *REFUGEE RELIEF* and consigned to the Deputy Prime Minister, the Ministry of Relief and Rehabilitation, New Delhi, or the Minister of Health and/or the Commandant, Refugees Camp, Kurukshetra, were carried free.

Special rates for guavas and oranges from certain stations on the Bengal Nagpur Railway to Howrah were enhanced.

72. Effect of revision of passenger fares and rates on earnings.

(1) **Effect of revision of goods rates on earnings—East Indian Railway.**—The general enhancement in freight rates helped to arrest the serious fall in earnings which would have followed the very heavy drop in traffic. This drop was mainly attributable to operational difficulties preceding and following the partition of the country resulting in a general fall in loadings and clearance of traffic. With a drop of 18·8 per cent. in the number of tons carried and 24 per cent. in the net ton miles, the earnings over the East Indian Railway (including Sealdah Division) recorded a decrease of only 0·67 per cent. as compared with the actual earnings of the East Indian Railway.

An analysis of the earnings and the volume of traffic during the last three months of the years, the period affected by the changes in rates which were introduced on 1 January 1948, shows that there was an increase of 5·6 per cent. in the earnings over the East Indian Railway (including Sealdah Division) in 1948, as compared with those of the East Indian Railway (excluding Sealdah Division) in 1947. The tonnage and ton miles, however, recorded a decrease of 20·3 per cent. and 38 per cent. respectively, as compared with the corresponding figures of 1947.

The increase in the earnings of the South Indian and Jodhpur Railways is shown below:

South Indian Railway . . .	Rs. 29,93,000 (for 3 months January—March 1948).
Jodhpur Railway	Rs. 16,537 (for 2 months January—February 1948).

(2) **Effect of revision of passenger fares on earnings.**—The increase in earnings as a result of the revision of passenger fares from 1 January 1948 has been assessed as follows:

Particulars.	Jan.—March 1947.	**Jan.—March 1948.**	Increase over 1947.
(*a*) *East Indian Railway (excluding Sealdah Division).*			
No. of passengers	26,124,027	**28,513,179**	2,389,152
Earnings	Rs. 2,81,29,678	**Rs. 3,56,30,913**	Rs. 75,01,235
(*b*) *South Indian Railway.*			
Earnings	—	—	Rs. 16,76,000
(*c*) *Jodhpur Railway.*			
Earnings, (for Jan.—Feb. only) . . .	Rs. 12,49,474	**Rs. 15,13,233**	Rs. 2,63,759

73. Efforts to secure better wagon usage and wagon loads.—To meet the demands for transport which continued to be heavy during the year, the special measures adopted by railways during the previous years for securing better usage of wagons and improved wagon loads were pursued and extended. Nominated loading was adopted wherever possible. On the East Indian Railway, the policy of introducing lump sum rates on a floor area basis, with a view to obviating the demand for the supply of particular types of wagons resulting in delays at junctions and marshalling yards, and to speed up the transit time of wagons by eliminating weighment of wagons, was continued during the year. The special rates thus introduced were applicable to :

(1) bricks—from Beldanga, Ranaghat, Santipur, etc., to certain Calcutta stations, Ballygunge, etc.,

(2) bamboos—for paper-making from Bhagwangola, Murshidabad, Cossimbazar, etc., to Titaghur and Kankinara Paper Mills.

In order to effect quicker release of wagons, the free time of 9 hours of daylight for loading or unloading of wagons was reduced to 6 hours of daylight.

On the South Indian Railway the special minimum weight conditions attached to rates on several commodities moving in wagon loads were enhanced. The scales of wagon rates for firewood, plantains and sugarcane were allowed to continue on the revised bases in order to maintain a quick turnround of wagons.

On the Jodhpur Railway, the load of Traffic Road Vans was increased to 160 maunds or half the carrying capacity of the wagon used.

74. Co-ordination of rail, road and water transport.—At the ninth meeting of the Transport Advisory Council held at Delhi in November 1946, all provinces, with one exception, agreed to the railways being allowed to participate financially in rail-road co-ordination schemes to a minimum extent of 20 per cent. of the share capital. The following position was reported from the various Provinces :—

ASSAM.—The Provincial Government examined the possibility of running a road service between Gauhati and Nowgong by the Government-owned Assam Transport.

WEST BENGAL.—The standstill agreement entered into between the Governments of East and West Bengal, as a result of partition, made progress with rail-road schemes impossible.

BIHAR.—A scheme for the formation of a tripartite joint-stock road transport company with a share capital of Rs. 45 lakhs was drawn up, railways being allotted 20 per cent. shareholding. Two directors from the railways were nominated to the Board of the proposed company.

ORISSA.—In accordance with the policy of nationalization of road motor transport in the province, the Government of Orissa drafted a scheme for the formation of one joint-stock road transport company for the whole province for the operation of passenger and goods services. The scheme provided for a 20 per cent. shareholding by the railway in the authorized capital of rupees 1 crore and the appointment of a director from the railway to the Board of the proposed company.

MADRAS.—Association with the Madras Government in respect of nationalized road transport could not be finalized as the railways were offered a shareholding below the agreed minimum.

CENTRAL PROVINCES AND BERAR.—The two rail-road companies operating in the province reported losses, in consequence of which one of them, the Central Provinces Transport Services, Ltd., was taken over by the Provincial Government. In the case of the other company, an improvement was recorded in the last quarter of the year. The Provincial Government declared a policy which aimed at nationalization of road motor transport in the Central Provinces and Berar by stages, including the existing two joint-stock companies.

Only the Provincial Government and the railways, it was proposed, would participate financially in the proposed nationalized road transport undertakings, the railways' share being 25 per cent.

BOMBAY.—The activities of 'Relief Services' decreased on account of civil disturbances and competition. The Bombay Government decided to nationalize road transport, taking over all road services in the province ultimately. The formation of a transport corporation is envisaged, and on this the railways, whose share in the capital outlay is to be 25 per cent. will be given representation.

UNITED PROVINCES.—The United Provinces Government finally decided during 1947 to nationalize passenger bus transport. They purchased from the railways the buses which had provided for the projected joint-stock companies. The railways were offered a 25 per cent. shareholding in the nationalized services, which commenced operations in August 1947. No concrete scheme, however, was evolved during the year for joint control and operation, and no investment of railway funds was, therefore, made during the period.

EAST PUNJAB.—The East Punjab Government did not announce their policy on rail-road co-ordination nor did they accept the Revised Draft Code of Principles and Practice for the regulation of motor traffic. On the contrary, they contemplated the giving of long distance permits for carriage of goods traffic to road haulers. Representations on the questions involved were made to the Provincial Government.

AJMER-MERWARA.—The question of rail-road co-ordination in Indian States served by the Bombay, Baroda and Central India Railway remained in a fluid state, owing to political activities in several Indian States for the formation of the United States of Malwa.

75. Closer contact with business interests.—Railways continued to maintain close contact with trade, commerce and industry, and informal meetings were held with representatives of chambers of commerce, trade associations and merchants at important centres. Discussions at these meetings ranged over a variety of subjects such as booking and transport facilities, delays to goods in transit, settlement of claims, etc. Railways, which were members of chambers of commerce participated in the deliberations of these bodies, and these contacts afforded a useful means of fostering better relations and understanding between the railways and commercial interests.

76. Claims for Compensation and Refunds.—Despite the various remedial measures adopted, the position with regard to the number of claims for compensation and refunds preferred against railways continued to deteriorate. The factors which contributed to the further deterioration were:

(*a*) misdespatches and looting, consequent on the civil disturbances during the period of the constitutional changes;

(*b*) rise in prices and continued scarcity of commodities, rendering thefts more profitable;

(*c*) non-availability of suitable packing materials and containers; and

(*d*) inadequate marking of consignments, resulting in misdespatches.

The following preventive measures were continued during the year:

(*a*) closer liaison between the Commercial Department, Watch and Ward Department, and the Railway Police, with the object of localizing and stamping out organized crimes;

(*b*) concentrated and sustained drive on fully planned basis by District and Divisional Officers, with a view to stamping out those irregularities which result in claims;

(*c*) intensified efforts and better attention to such matters as correct marking of consignments by railway staff, careful handling, careful loading—especially damageable consignments—away from wagon doors; and

(*d*) avoidance of rough shunting.

The position with regard to settlement of claims, which had deteriorated seriously during the war, did not unfortunately improve to an extent that was desired. This resulted in serious complaints from the public. The question of expeditious settlement of claims has been under constant review by the Railway Board, who have decided to take certain special measures which are expected to help in minimizing the existing arrears of claims and in ensuring that current claims are kept up to date.

A directive has been issued to Railways regarding the settlement of pre-partition claims on traffic originating in India but consigned to stations in Pakistan. Under an agreed directive, issued prior to partition, all claims were to be settled by the Railway on which the destination station is situated, but the Pakistan Railways failed to act up to this agreement and a procedure for the settlement of such claims has now been arrived at in consultation with the Government of Pakistan. The Pakistan Railways are now passing on these claims to the Indian Government Railways and they will be disposed of as quickly as circumstances permit.

The following statements for Class I Railways show for 1947-8 :—

(*A*) the number of claims received in respect of goods or parcels damaged or lost, and for goods and parcels overcharged and the average time taken in their settlement;

(*B*) the number and value of claims paid in respect of goods or parcels lost or damaged under main causes;

(*C*) the number of Court cases in respect of goods or parcels lost, damaged or delayed and their disposal.

STATEMENT A.

Claims received for goods or parcels damaged, lost or overcharged, and the average time for settlement.

Item No.	Particulars.	Assam.	B. N.	Bikaner State.	§ B., B. & C. I.	E. I.	E. P.	G. I. P.	Jodhpur.	M. & S. M.	Mysore State.	N. S.	O. T.	S. I.
1	Number of claims involving compensation for goods or parcels lost, damaged, or delayed carried over as unsettled at the close of the preceding year.	3,297	10,891	4,518	14,229	18,045	9,768	31,400	3,544	4,917	3,546	3,130	11,193	2,230
2	Number of claims received (and re-opened) for compensation on account of goods or parcels lost, damaged, or delayed during the current year.	6,244	39,270	6,430	36,665	97,247	21,820	59,424	8,409	26,017	7,039	7,782	22,324	11,174
3	Number of claims referred to in items 1 and 2 settled during the year.	7,602	30,727	1,991	30,769	92,929	9,599	43,979	6,008	23,21	6,868	4,918	12,978	10,875
4	Balance outstanding as unsettled at the close of the year.	1,939	19,434	7,786	20,125	22,363	21,989	46,845	5,945	7,721	3,717	5,994	20,539	2,529
5	Net amount paid in compensation. Rs.	7,19,787	19,28,316	81,047	1,83,308	15,11,272	3,19,735	16,99,367	§45,075	7,58,629	6,870	98,706	6,75,062	2,47,062
6	Percentage sum paid in compensation (item 5) borne to gross earnings.	2·80	1·67	7·32	0·16	0·73	0·55	0·85	§0·29	0·41	0·07	0·18	0·70	0·35
7	Average time taken in settlement of claims shown under items 1 & 2. Days.	62	95	90	171	78	109	106	134	83	109	163	74	64
8	Number of applications received for refunds on goods and parcels overcharged.	4,606	5,473	486	*	18,131	1,273	11,436	1,893	13,320	1,729	*	3,014	22,522
9	Average time taken in settlement of claims shown under item 8. Days.	78	175	65	*	77	28	55	81	46	94	*	89	66

§ Figures are provisional.

* Figures not available.

STATEMENT B.

Number and value of claims paid.

Item No.	Particulars.		Assam.	B. N.	Bikaner State.	§ B., B. & C. I.	E. I.	E. P.‡	G. I. P.	Jodhpur.	M. & S. M.	Mysore State.	N. S.	O. T.	S. I.
1	Claims paid on account of goods lost.	No.	402	7,815	1,090	7,783	17,030	..	9,763	1,433	2,775	*Nil*	755	2,586	1,499
		Value Rs.	76,075	11,01,350	55,890	5,79,958	29,57,247	..	9,70,292	1,12,409	4,24,975	*Nil*	82,106	3,96,558	77,615
2	Claims paid on account of goods stolen.	No.	1	3,168	*Nil*	44	5,142	..	†	201	41	*Nil*	28	1,746	28
		Value Rs.	279	6,16,814	*Nil*	4,133	3,09,713	..	†	11,246	13,359	*Nil*	10,147	6,37,901	11,917
3	Claims paid on account of goods damaged by wet.	No.	*Nil*	17	4	396	656	..	2,153	5	170	*Nil*	20	84	38
		Value Rs.	*Nil*	8,183	109	29,493	65,213	..	1,11,958	807	30,298	*Nil*	2,534	14,076	8,166
4	Claims paid on account of goods damaged by fire.	No.	*Nil*	4	*Nil*	4	1	..	*Nil*	5	9	*Nil*	*Nil*	*Nil*	2
		Value Rs.	*Nil*	19,546	*Nil*	1,171	122	..	*Nil*	921	15,778	*Nil*	*Nil*	*Nil*	352
5	Claims paid on account of goods damaged by breakage.	No.	*Nil*	18	514	68	247	..	555	*Nil*	119	*Nil*	92	59	57
		Value Rs.	*Nil*	2,353	15,975	2,749	16,993	..	39,879	*Nil*	4,288	*Nil*	7,950	9,757	1,377
6	Claims paid on account of parcels and luggage lost and stolen.	No.	242	3,056	376	2,146	7,630	..	1,986	313	2,662	*Nil*	149	2,185	1,007
		Value Rs.	79,515	2,88,192	19,310	1,95,046	5,03,289	..	1,05,654	13,426	2,41,521	*Nil*	3,340	1,98,020	47,458
7	Claims paid on account of other causes.	No.	1,670	1,896	7	627	2,317	..	2,993	44	4,615	1,731	1,726	805	1,750
		Value Rs.	5,63,918	4,51,652	1,549	1,91,102	1,08,746	..	2,72,659	7,672	3,30,925	6,870	1,24,482	2,73,554	2,37,960

‡ Due to abnormal conditions prevailing after the parition, the allocation of claims paid under each head was not possible.

† Included under item 1.

STATEMENT C.

Number of Court cases in respect of claims and their disposal.

Item No.	Particulars.	Assam.	B. N.	Bikaner State.	§ B., B. & C. I.	E. I.	E. P.	G. I. P.	Jodhpur.	M. & S. M.	Mysore State.	N. S.	O. T.	S. I.
1	Number of suits filed in court (or pending from the previous year) for the recovery of compensation in respect of goods or parcels lost, damaged or delayed.	1,379	2,902	27	2,776	6,848	325	7,776	164	1,438	367	121	4,918	325
2	Number of such suits settled out of court.	742	778	5	674	887	11	883	6	336	36	39	641	100
3	Number of suits dismissed.	11	214	3	47	576	59	126	3	136	32	15	197	53
4	Number of suits decreed	86	82	1	30	583	227	254	*Nil*	59	11	11	232	20
5	Number of suits pending	540	1,828	18	2,025	4,802	618	6,513	155	907	507	56	3,848	152

§ Figures are provisional.

77. Prevention of Ticketless Travel.—Active measures for preventing ticketless travel were continued, but overcrowding in trains rendered it impossible, in many instances, to carry out complete check in compartments. The problem was accentuated by the situation created by the partition of the country and the events which followed. Special measures adopted by railways included the following :

(1) **Enlisting the co-operation of Provincial Governments and instituting special drives in conjunction with the Provincial Governments to counteract irregular travelling.**—A detailed scheme was drawn up in conjunction with the United Provinces Government, for dealing with the problem, which in that Province had become particularly acute. The scheme came into operation in January 1948, and it was agreed that, as a special case, expenditure on magistrates and police would be borne by the Central Government. Magistrates were placed under the administrative control of the Provincial Government, but under the operational control of the Railway Administrations concerned The methods adopted were :

(*a*) checks on running trains with magistrates and police;

(*b*) concentrated checks at selected stations and surprise checks at roadside stations and between stations, by the combined railway checking staff, police and magistrates.

In West Bengal, a magistrate was allotted by the Government to each Division, and additional police were provided to assist railway checking staff at stations. In Bihar, some magistrates were deputed to deal with cases of ticketless travel for a certain period in the month.

(2) **Examination of arrangements for the issue, check and collection of tickets.**—Steps necessary to remove difficulties caused by inadequacy of booking facilities were examined and remedial measures taken wherever found necessary.

(3) **Checks by officers of all departments of the railway.**

78. *Mela* Traffic.—After the lapse of the Defence of India Rules under which restrictions on the sale of tickets could be imposed during the occurrence of *melas* and fairs, the traffic needs on such occasions were met by the adoption of such operational arrangements as were possible with the limited rolling-stock available.

79. Measures to ensure civility and assistance on the part of railway staff in their dealings with the public.—Railways continued to give special attention to the promotion of civility and assistance on the part of railway employees in their dealings with the public. Special efforts were made to impress upon all staff coming into contact with the public the duty which they, as public servants, owed to the customers of the railways. All complaints of incivility against railway staff were investigated and appropriate action taken in proved cases.

80. Measures taken to prevent black-marketing of tickets.—Owing to the improvement in the stock position of tickets and the introduction of double tickets at stations, the difficulty experienced by the travelling public in obtaining tickets was removed. Instructions were issued to the staff as well as to the inspecting officials to exercise strict vigilance on the punctual opening of booking windows and the sale of tickets.

CHAPTER V

RAILWAY COLLIERIES

81. Output from principal railway collieries.—The total output from the principal railway collieries during the year 1947-8 as compared with that during the previous year is shown in the accompanying table. There has been a decrease of 759,021 tons or 18·44 per cent. as compared with the previous year.

OUTPUT OF COAL FROM RAILWAY COLLIERIES DURING 1947-8.

(Figures in tons.)

Colliery.	Railway.	1946-7.	1947-8.					
			Selected.			Grade.		
			Total.	A.	B.	I.	II.	III-A.
1. Bhurkunda	E. I.	167,702	**158,347**	..	..	**158,347**	..	..
2. Kargali	G. I. P.	957,368	**693,521**	..	..	**556,148**	**137,373**	..
3. Kurharbaree and Serampore.	E. I.	452,074	**483,060**	**390,872**	**84,467**	**5,862**	**1,859**	..
4. Joint Bokaro	E. I. and B. N.	1,647,612	**1,227,210**	..	..	**1,227,210**	..	..
5. Joint Sawang	E. I. and B. N.	61,805	**47,591**	..	..	**47,591**	..	..
6. Jarangdih	B., B. & C. I., and M. & S. M.	38,467	**20,575**	..	..	..	**20,575**	..
7. Talcher	M. & S. M.	171,376	**130,822**	..	..	..	**130,822***	..
8. Kurasia	B., B. & C. I.	349,744	**365,826**	..	..	**365,826***	..	..
9. Argada	B. N.	182,289	**162,383**	..	..	**162,383**	..	..
10. Deulbera	B. N.	87,133	**67,214**	..	..	..	**67,214**	..
	TOTAL	4,115,570	**3,356,549**	**390,872**	**84,467**	**2,523,367**	**357,843**	..

* Probable grade.

The total quantity of coal despatched by railway collieries during 1947-8 amounted to 2,862,187 tons, of which 2,805,089 tons, or 98 per cent., were despatched to railways. This represents 27·7 per cent. of the total coal consumption of railways during the year.

82. Coking coal.—The particulars of the coking coal produced by railway collieries during the year are stated below:

Colliery.	Grade and Quantity of coal produced.	Quality of coal and where used.
1. Kargali	Grade I—556,148	Inferior coal of high ash content and poor coking proportion, used entirely for goods service.
	Grade II—137,373	Very inferior coal unsuitable for metallurgical purposes owing to high ash content. Used for slow goods and shunting services.
2. Giridih (Kurharbaree and Serampore.)	Sel. A—390,872 Sel. B—84,467	Best high grade coal, the dust of which is manufactured into hard metallurgical coke for use in Railway Foundries and Workshops. Used for mail and express goods services.
	Grade I—5,162	Inferior grade coal which cannot be used for production of metallurgical coke unless blended with other high grade coals or specially treated by washing. Used mainly for goods services.
	Grade II—1,859 Grade III-A—	Very inferior coals unsuitable for metallurgical purposes owing to their high ash content. Used for slow goods and shunting services.
3. Joint Bokaro	Grade I—1,227,210	Inferior grade coal, the dust of which only is suitable for metallurgical purposes. The seam worked as a whole cannot, owing to high ash content, be used even for blending with high grade coals, unless intensive cleaning and washing is resorted to. Used entirely for goods services.
4. Joint Sawang	Grade I—47,591	Ditto.
5. Jarangdih	Grade II—20,575	Very inferior coal, unsuitable for metallurgical purposes. Used for slow goods and passenger services.
6. Argada	Grade I—162,383	Inferior grade coal unsuitable for metallurgical purposes owing to its high ash content. Used for goods and shunting services.

83. Total coal consumed by railways.

	Tons
Class I Railways—	
Indian Government Railways	8,292,567
Other Class I Railways	392,691
Class II Railways	226,261
Class III Railways	79,427
TOTAL .	8,990,946

The distribution by grade of the total quantity of coal consumed by railways is as follows :—

Grade	Tons
Selected A	859,308
Selected B	1,629,231
Grade I	4,261,982
Grade II	1,428,145
Grade III-A & B	497,827
Small coals	314,453
TOTAL .	8,990,946

84. Coal mined in India.—In 1947, the coal mined in the various provinces of British India amounted to 26,892,893 tons as against 26,689,747 tons in 1946, an increase of 203,146 tons.

85. Coal despatched by rail.—The quantity of coal carried by the East Indian and Bengal Nagpur Railways during 1947-8 was 21·35 million tons, which was 2·84 million tons less than that carried during the previous year. The comparative figures for the two railways are as follows :

	1946-7	1947-8
	Tons	Tons
East Indian Railway . . .	14,765,675	12,108,991
Bengal Nagpur Railway . .	9,424,809	9,239,699
TOTAL .	24,190,484	21,348,690

CHAPTER VI

ROLLING-STOCK AND MATERIALS

86. Additions to equipment.—During the year the following locomotives and rolling-stock were on order for the Indian Government Railways :—

	Broad gauge.	*Metre gauge.*
Locomotives	569	91
Coaching stock*	2,046	532
Goods stock*	10,301	738

New locomotives and rolling-stock actually placed on the line during the year as additions or in replacement were :

	Broad gauge.	*Metre gauge.*
Locomotives	28	*Nil*
Coaching stock*	186	100
Goods stock*	5,518	195

* Figures for coaching and goods stock are in terms of four-wheeled units.

87. Engines.—The average tractive effort per engine, in lb., on Class I Railways during the year 1947-8 as compared with that in the year 1946-7 stood as follows :

[AVERAGE TRACTIVE EFFORT PER ENGINE (IN LBS.)]

Type of locomotives.	Broad gauge.		Metre gauge.	
	1946-7	1947-8	1946-7	1947-8
(1) Steam (including sentinel and Clayton types) . .	27,146	**27,257**	15,329	**15,624**
(2) Diesel Electric	26,965	**25,412**	..	..
(3) Electric	30,756*	**30,756**	10,400	**10,400**

* Revised.

NOTE.—The figures for 1946-7 exclude those of the Bengal Assam and North Western Railways, and those for 1947-8 include Eastern Punjab and Assam Railways.

88. Manufacture of boilers and locomotives in India.—The construction of the Locomotive Building Works at Kanchrapara was abandoned and the workshop has been proposed to be constructed at Mihijam, 20 miles from Asansol. The decision taken on this project has already been referred to in paragraph 43 of Chapter III.

The Singhbhum Shops of Messrs. Tata Locomotive and Engineering Co., Ltd., completed the manufacture of the first of the SGS class locomotive boilers in July 1947 and, by the end of the period under review, completed 20 boilers. The Company's scheme for the manufacture of locomotives in the Singhbhum Workshops was approved by the Government in May 1947.

The second batch of 10 XTI locos. is still under construction in the Ajmer Workshops.

89. Rationalization of manufacturing capacity in railway workshops.—Eight meetings of the Rationalization Committees were held during the year and some progress towards bulk manufacture of locomotives, and carriage and wagon spare parts was made. Due to the partition of the North Western Railway in August 1947, the Northern Group ceased to exist.

90. War Branch.—In July 1947, the War Branch in the Railway Board's Mechanical Directorate was amalgamated with the main Mechanical Branch and all outstanding work was taken over by the Main branch.

91. Rolling-stock and ambulance train.—One broad gauge ambulance train is still retained by the Military authorities.

92. Air-conditioning of coaching stock.—On release by the Defence Department broad and metre gauge air-conditioned ward cars have been converted into air-conditioned coaches for civilian traffic.

MATERIALS

93. Supply of rails and fishplates from indigenous sources.—The restricted supplies of steel referred to in the Report for 1947-8 continued during the year under review. The total tonnage of rails ordered from Messrs. Tata Iron and Steel Co. Ltd., for supply during the year 1947-8 amounted to 35,502 tons. No rails were ordered from the SCOB for the year under review. In addition there were arrears of 52,809 tons on 31 March 1948 against the 1945-6 and 1946-7 rail orders placed with the two Steel Companies. The total tonnage of fishplates ordered from Messrs. Tata Iron and Steel Co., Ltd.,—Steel Corporation of Bengal do not roll fishplates—for supply during the year amounted to 4,903 tons. Orders could only be placed up to the limit authorised by the Iron and Steel Controller. In addition, there was a carry forward of 1,222 tons against the orders for last year.

The actual quantity supplied against these orders, including the arrears against 1945-6 and 1946-7 during the year ending 31 March 1948, amounted to 48,711 tons of rails and 1,331 tons of fishplates only.

94. Wooden sleeper purchase organization.—The total value of timber and sleepers purchased by Class I Railways (excluding Bikaner, Jodhpur, Mysore and His Exalted Highness the Nizam's State Railways) during 1947-8 was as follows:—

	(In thousands of rupees.)
Timber	Rs. 75,07
Sleepers	Rs. 78,71

The relative proportion of various kinds of sleepers used may be seen from the following percentages based on the total number of sleepers in the tracks of Class I Railways, excluding the Mysore Railway:

(Figures in percentages.)

	Wood	Cast iron	Steel	Others
Broad gauge	28	50	22	—
Metre gauge	70	5	25	—

The wooden sleeper track mileage of broad and metre gauges on Class I Railways, excluding Mysore Railway as on 31 March 1948 was as follows:

	Miles
Broad gauge	7,015·79
Metre gauge	10,733·10
Total	17,748·89

No wooden sleepers were imported for Indian Railways.

The average price of 1st Class sleeper in the Eastern Group was :—

Broad gauge	Rs. 10-11-8	per sleeper
Metre gauge	Rs. 5-0-0	per sleeper

At the Dhilwan creosoting plant on the Eastern Punjab Railway 248,705 broad gauge sleepers of coniferous species were treated with a mixture of 40 per cent. creosote and 60 per cent. fuel oil during 1947-8. The details are given below :—

NUMBER AND COST OF TREATING SLEEPERS

—		Deodar	Kail	Chir	Fir
(1) No. of sleepers treated		8,216	925	175,248	64,316
(2) Average absorption of mixture per sleeper .	lbs.	10·48	14·72	14·81	15·02
(3) Cost of treating per sleeper	Rs.	1-8-4	1-9-11	2-7-6*	1-11-6

* Higher cost of treating chir sleepers is due to higher transport charges to Dhilwan, *viz.*, Re. 0-13-6 as compared to Re. 0-1-4 for FIR and Re. 0-2-0 for DEODAR, per sleeper.

Besides a number of sleeper ends, poles and other timber equal to 47,356 broad gauge sleepers were also treated during the same period. At the Naharkatiya Treating Plant in Assam 18,831 broad gauge and 87,354 metre gauge sleepers of various species like *Hollong*, *Hollock Jutli Sam* and *Makai* were treated during the year. The cost of treatment per sleeper was Rs. 3-7-11 per broad gauge and Rs. 1-10-0 per metre gauge sleeper.

95. Value of railway materials purchased.—The information relating to the transactions on the Bengal Assam and North Western Railways during the pre-partition period ending 14 August 1947 is not yet available. The total value of stores purchased by the Indian Government Railways during the year, including the East Punjab and Assam Railways as from 15 August 1947, amounted to Rs. 81·59 crores.

For purposes of comparison with the last financial period, it is necessary to exclude the Eastern Punjab and the Assam Railways which came into existence on 15 August 1947. The value of stores purchased by Indian Government Railways, excluding the two new railways referred to, increased from Rs. 67·82 crores in 1946-7 to Rs. 78·23 crores in 1947-8. The value of ' indigenous materials ' purchased increased by Rs. 13,73 lakhs while that of ' imported materials ' decreased by Rs. 3,32 lakhs. The overall increase was particularly heavy under miscellaneous stores grouped in the statement below as ' all other stores ' totalling Rs. 12,75 lakhs. ' Stores hardware ' copper, tin, etc., advanced by Rs. 3,95 lakhs, and electrical and train and locomotive lighting plants, etc., by Rs. 37 lakhs. But there was appreciable reduction, under rolling-stock, of Rs. 5,99 lakhs and permanent way material and track tools of Rs. 82 lakhs.

The following statement presents a summary of the stores purchased during 1947-8 and the corresponding figures for 1946-7. The detailed figures are given in Appendix A, pages 240-43 of Volume II of this Report.

VALUE OF RAILWAY MATERIALS PURCHASED DURING 1947-8.

Indian Government Railways.

(Figures in lakhs.)

Particulars.	1947-8 Including Eastern Punjab and Assam.					Total purchases excluding Eastern Punjab and Assam.	
	Imported materials.						
	Purchased direct.	Purchased through agents in India.	Total imported materials.	Indi genous materials.	Total.	**1947-8.**	1946-7.
	Rs.	Rs.	Rs.	Rs.	Rs.	**Rs.**	Rs.
A.—Bridge work and its parts, fittings and special fastenings.	..	1	1	1	2	**2**	2
B.—Engineering plant and components including all hand and power machinery.	3	7	10	6	16	**15**	8
C.—Workshop machinery, plant and equipment including pneumatic machinery and tools.	32	28	60	8	68	**68**	68
D.—Permanent way material and track tools.	1	11	12	3,80	3,92	**3,70**	4,52
E.—Rolling-stock	1,91	1,60	3,51	3,43	6,94	**6,93**	12,92
F.—Building materials, water mains, sewage system and track and yard enclosing material and signal and interlocking materials, etc.	1	10	11	85	96	**86**	78
G.—Stores, hardware, copper, tin and zinc-ware, all leather, canvas and india-rubber in bulk, metals, painters' stores, timber and fuel and fuel oil, etc.	6	87	93	16,13	17,06	**16,18**	12,23
H.—Electrical and train and locomotive lighting plants and materials, etc., and telegraph and telephone equipment.	18	69	87	37	1,24	**1,21**	84
All other stores	15	1,19	1,34	49,27	50,61	**48,50**	35,75
Total .	2,67	4,92	7,59	74,00	81,59	**78,23**	67,82

96. Intake of indigenous goods.—Of the total value of purchases of railway stores and materials made during 1947-8 by the Indian Government Railways, the value of stores imported direct amounted to Rs. 2,67 lakhs. Imported stores purchased in India accounted for Rs. 4,92 lakhs. Stores of Indian manufacture or indigenous origin have naturally accounted for the bulk of expenditure, the amount during the year being Rs. 74,00 lakhs or 90·7 per cent of the total. These figures do not include the figures of the Bengal Assam and North Western Railways for the period ending 14 August 1947, but the purchases of the Assam and Eastern Punjab Railways are taken into account. It may be mentioned that total figures of the Eastern Punjab Railway are, however, accounted for under ' indigenous goods ' as, in the absence of proper stores organization on this railway after partition, no remarks could be recorded by the Stores Department on the orders to indicate if the materials ordered were " imported or of indigenous origin ".

The comparative figures of total purchases for 1946-7 and 1947-8 in respect of the Indian Government Railways (excluding the Bengal Assam and North Western Railways) are given below. These include purchases made through the Ministry of Industry and Supply and other Government agencies, and purchases of foodgrains for Railway Grainshops.

TOTAL VALUE OF PURCHASES OF STORES

(In lakhs of rupees.)

Year.	Stores imported direct.	Imported stores purchased in India.	Stores of Indian manufacture or indigenous origin.	Total value of imported and indigenous stores.	Percentage of col. 4 to col. 5.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
1946-7*	2,07·41	8,81·62	56,92·64	67,81·67	84·0
1947-8*	**2,66·80**	**4,89·82**	**70,65·90**	**78,22·52**	**90·3**
Do.**	**2,66·84**	**4,92·60**	**73,99·66**	**81,59·10**	**90·7**

** Including E. P. and Assam but excluding N. W. and B. A. Railways.

97. Value of Stores purchased through the Ministry of Industry and Supply.—The comparative figures of the value of stores purchased through the Ministry of Industry and Supply for 1946-7 and 1947-8 are shown below:—

STORES PURCHASED THROUGH THE MINISTRY OF INDUSTRY AND SUPPLY.

(In lakhs of rupees.)

Year.	Total value of stores purchased.	Value of stores purchased in India through the Ministry of Industry and Supply.	
		Amount.	Percentage of col. 3 to col. 2.
1	2	3	4
	Rs.	Rs.	Rs.
1946-7*	67,81·67	4,03·14	5·9
1947-8*	**78,22·52**	**11,49·45**	**14·7**
Do.**	**81,59·10**	**12,10·29**	**14·8**

** Including E. P. and Assam but excluding N. W. and B. A. Railways.

NOTE 1*.—The figures are exclusive of transactions pertaining to North Western, Bengal Assam, Eastern Punjab and Assam Railways.

NOTE 2*.—The figures are exclusive of purchases made for the Railway Board and the Chief Mining Engineer as also the value of purchases made by the Textile Commissioner, Bombay, on behalf of the Government Railways.

98. Value of Stores purchases controlled by the Railway Board.—As in previous years, the Railway Board continued to purchase wagons for the Indian Government Railways. The value of the stores thus purchased during 1946-7 and 1947-8 by the Railway Board of these items are given below:—

STORES PURCHASED BY THE RAILWAY BOARD.

(In lakhs of rupees.)

Year.	Total value of stores purchased.	Value of stores purchases controlled by the Railway Board.	
		Amount.	Percentage of the total value of stores purchased.
1946-7*	67,81·67	8,06·57	11·9
1947-8*	**78,22·52**	**4,15·25**	**5·3**
Do.**	**81,59·10**	**4,15·32**	**5·1**

** Including E. P. and Assam but excluding N. W. and B. A. Railways.

NOTE 1*.—The figures are exclusive of transactions pertaining to North Western, Bengal Assam, Eastern Punjab and Assam Railways.

NOTE 2*.—The Board also exercised a great deal of control in the case of the purchase of locos., boilers, rails, sleepers and coal for Railways during the year under review. But the actual orders for these items were placed either by the Railways direct (as in the case of wooden and cast iron sleepers) or through the Ministry of Industry and Supply. The value of these items excluding coal, amounted to Rs. 4,98·63 lakhs during 1947-8 as compared with Rs. 8,20·94 lakhs during 1946-7. The corresponding figure for 1947-8, including Eastern Punjab and Assam, but excluding North Western and Bengal Assam Railways, is Rs. 5,14·34 lakhs.

99. Value of Cash purchases in North America controlled by the Railway Board.—The total debits raised by the Deputy Accountant General, Industries and Supplies, New Delhi, against various railways during the year 1947-8 on account of cash purchases in North America controlled by the Railway Board, amounted to Rs. 80,36,827.

100. Direct purchases by Railways.—The value of direct purchases by Railways (excluding Bengal Assam, North Western, Eastern Punjab and Assam Railways) during 1947-8 amounted to Rs. 62,58 lakhs, as compared with Rs. 55,72 lakhs during 1946-7. The corresponding figure for 1947-8 (including Eastern Punjab and Assam Railways, but excluding North Western and Bengal Assam Railways) is Rs. 65,34 lakhs.

101. Stores Balances.—The total stores balances of the Indian Government Railways, as they stand after partition at the end of 1947-8 are compared with those at the end of 1946-7 in the following statement :—

(In lakhs of rupees.)

Year.	Assam.	B. N.	B., B. & C. I.	E. I.	G. I. P.	M. & S. M.	E. P.	O. T.	S. I.	Other Rlys.	TOTAL.
1946-7.	—	3,60	2,54	4,71	5,23	1,60	—	90	1,36	81	20,75
1947-8.	**36**	**4,23**	**3,06**	**8,65**	**6,16**	**1,95**	**3**	**1,51**	**1,54**	**91**	**28,40**

102. Timber supply situation.—The timber supply situation on Class I Railways (except Mysore State Railway) continued to be fairly satisfactory throughout the year. The table below shows the demand and supply of timber during the year :—

(Figures in tons.)

Year.	Quantity demanded by railways.	Quantity actually received by the railways.
1947 II quarter . . .	11,368	6,920
1947 III quarter . . .	11,368	6,088
1947 IV quarter . . .	11,368	7,357
1948 I quarter . . .	14,359	8,616
TOTAL . .	48,463	28,981

At the end of the year, the working stocks of Class I Railways (except Mysore State Railway) totalled 21,939 tons.

103. Supply situation of vital stores or components.

Indigenous stores.—The general position with regard to the supply of indigenous stores was satisfactory during the year.

Imported stores.—The general supply of imported stores *ex*-United Kingdom improved during the year, except in the case of a few items.

The following were the main items of stores outstanding at the close of 1947-8 against C.I.R.'s 1944, 1945, 1946 and 1947 indents :—

No.	1944 indents	1945 indents	1946 indents	1947 indents
(1)	Chains	Chains	Chains	Chains
(2)	Boilers	Boilers	Boilers	Boilers
(3)	Ditto	Pumps	Pumps	Tyres, wheels, axles
(4)	Ditto	Copper fire box plates	Copper plates	Copper plates
(5)	Ditto	Ditto	Boiler tubes	Boiler tubes
(6)	Ditto	Ditto	Lenses and glass sheets	Lenses and glass sheets
(7)	Ditto	Ditto	Loco. spares	Loco. spares
(8)	Ditto	Ditto	Motor coaches and trailers	Motor coaches and trailers
(9)	Ditto	Ditto	Ditto	Cross-heads

The main items of importance on order from the United States of America were North American loco. spares and generating sets spares. The supply of spares against 1946 indents has been quite satisfactory during the year and almost all demands are nearing completion. The supply of loco. spares against 1947 indents did not, however, improve to the extent anticipated. Some delay was also caused by the partition as the question of the allocation of stores as between India and Pakistan against common purpose demands presented considerable difficulties.

The receipt of stores *ex*-Australia has been satisfactory and orders for only 79 items, consisting mainly of copper tubes and pipes and gauge glasses, still remain to be completed.

104. Situation regarding theft of Railway property.—Only two cases of thefts of stores and valuable materials from stores depots were reported during the year. Necessary steps have been or are being taken to tighten up security measures to prevent repetition.

105. Water Softening Committee.—During the year under review further progress was made in the installation of water softening and treatment plants on the Bombay, Baroda and Central India and Great Indian Peninsula Railways.

CENTRAL STANDARDS OFFICE FOR RAILWAYS

106. Civil Engineering Branch.

Designs.—During the year, the more important drawing and design work undertaken included the items listed below :—

Bridges—

(1) 155 ft. girders with welded members and riveted field joints for B.G.M.L. loading.

(2) Combined deck for road-rail bridges.

(3) Reinforced concrete rigid frame spans for B.G.M.L. loading.

(4) Welded plate girders of spans 20′, 30′ and 40′ with steel trough sleepers.

Structures—

(5) Designs for goods sheds of 30′ and 40′ spans.

(6) Tentative design for transhipment of coal from broad to metre gauge wagons.

Track—

(7) 1 in 8½ switch diamond for 90 R rail on wooden sleepers.

(8) Creep anchors.

(9) Investigations into maximum permissible wear of wing rails at crossings.

(10) Pre-stressed reinforced concrete sleepers for B.G. track.

Signalling and interlocking—

(11) Two armed tubular signals types A and B.

(12) Special fittings for tubular signals with counterweights either parallel to or at right angles to the track.

General—

(13) Recasting and enlarging the Track Manual.

(14) Revision and reprint of Steel Structures Code.

(15) Revision and reprint of Bridge Rules.

107. Mechanical Engineering Branch.—During the year under review the more important drawing and design work undertaken included the following items :—

(*a*) *Carriage and Wagon*—

(1) A lightweight welded bogie for use under the 5′-6″ gauge lightweight 11′-8″ all-steel stressed-skin coach.

(2) Proposed lightweight all-steel stressed-skin M.G. coach shell, 9′-4″ wide.

(3) Designs for lightweight 4-wheeled B.G. wagons, covered and open, employing high-tensile rolled steel sections, fabricated by welding.

(4) Preliminary design for a 150-ton well wagon to transport heavy and outside electrical transformers and other equipment.

(5) Design of a covered wagon with a sliding roof hatch to permit overhead loading.

(6) Interior layouts for buffet cars.

(7) Interior layouts for austerity coaching stock, upper, inter. and ordinary classes.

(8) Transportable containers for conveyance of oil, etc., specially to facilitate break-of-gauge transhipment.

(9) Interior layouts for proposed 9′-4″ shell of M.G. prototype coaches.

(10) Revision of design for B.G. goods brake vans to provide better amenities and improved riding qualities.

(11) The normal work of the Carriage and Wagon drawing office in maintaining standard drawings of rolling-stock was continued.

(*b*) *Locomotives*—

(1) Additional boiler washout and inspection facilities for U.S.A. and Canada built 2-8-2 type broad and metre gauge locomotives.

(2) Provision of cylinder barrel liners for broad and metre gauge I.R.S. Locomotives and U.S.A. and Canada built 2-8-2 type locomotives, where applicable.

(3) Application of soft grease lubricated coupling rod knuckle pins embodying I.R.S. features to U.S.A. and Canada built locomotives.

(4) Typical designs of cast steel crosshead with integral arm for B.G., M.G. and N.G. locomotives incorporating all approved I.R.S. features.

(5) Plug pattern multi-ring type piston valve for A/CWD Class locomotives.

(6) Modification drawings concerning Particular Specification for WP_1 Locomotives on order in North America and United Kingdom.

(7) Diagram of " WG " Class 2-8-2 type freight locomotives.

(8) Ash ejector apparatus for XE_1 Class Locomotives.

(9) " Honey-Comb " table rocking grates for AWE Class locomotives in connection with trials with low grade coal of higher ash content.

(10) The normal work of the locomotive drawing office in keeping standard drawings of locomotives up-to-date continued.

Imported locomotives—

(*a*) The Railway Board have transferred to the Central Standards Office for Railways from 1 January 1948 the duties hitherto borne by them in so far as the approval and recording of modifications to U.S.A. and Canada built locomotives and wagons are concerned.

(*b*) An index of modifications required to be carried out to the imported locomotives *ex*-U.S.A. and Canada has been maintained up-to-date and instructions have been issued to all railways concerned to incorporate these approved and accepted modifications in the locomotives in service.

Inspection of Boilers at Telco Works, Tatanagar—

(*a*) The Inspecting Officer for Railways, Tatanagar's periodical inspection reports showing the progress in the outturn and despatch of SG/S Boilers to Railways and test certificates are being regularly received in the Central Standards Office for Railways and examined carefully with a view to detect any departure from the standard drawings, specifications and accepted boiler practice.

(*b*) Questions which arise in regard to the interpretation of, or modification to, the particular specification and/or drawing relating to SG/S and "YB" boilers and being referred to Central Standards Office for Railways by Messrs. Tata Locomotive and Engineering Company. These are dealt with in consultation with the East Indian and Bombay, Baroda and Central India Railways and the Inspecting Officer for Railways, Tatanagar, where necessary.

108. Specifications Branch.

Specifications.—The normal work of this Branch in keeping Indian Railway Standard Specifications up-to-date continued throughout this year. During the year under review, one new Indian Railway Standard Specification was issued, and 51 Indian Railway Standard Specifications were revised and re-issued.

In view of the advance made in locomotive design since the Standard Specification for Steam Locomative Engines and Tenders was last issued in 1937, and numerous changes brought about by the recommendations of the Loco. Standards Committee, it was found necessary to revise completely this Specification. The specification has, therefore, been recast and finalized, in consultation with the Railways and Consulting Engineers and will be published during 1948-9 as an Indian Railway Standard Specification with the number R/32.

Two new Indian Store Department Specifications and one British Standard Specification were adopted for use on Indian Railways and five War Emergency-Revision slips to Indian Railway Standard Specifications were withdrawn.

The following particular specifications for Broad Gauge and Meter Gauge Indian Railway Standard rolling-stock and details were prepared :

(i) $\frac{\text{'MBTOX'}}{\text{'MBTPX'}}$ type of tank wagons.

(ii) 'BVG' type 4-wheeled Goods Brake-vans (Broad Gauge).

(iii) $\frac{\text{'CRX'}}{\text{'ORX'}}$ type lightweight broad gauge wagons.

(iv) 'TPR' type 4-wheeled tank wagons.

(v) Petrol Tank wagon cylinders (Metre Gauge).

The following detail locomotive and boiler particular specifications were also prepared :—

Locomotives—

(1) WP-1 Broad Gauge Locomotives.

(2) AWD/CWD Locomotives.

(3) MAWD Metre Gauge Locomotives.

Boilers—

HG/C Boilers (For India and Pakistan).

Specifications are regularly received from the Standards Institutions of Britain, Australia, New Zealand and the American Society for Testing Materials. These specifications are all reviewed, brought to the notice of Railways, or recorded for reference purposes.

The paint exposure tests have been concluded and a comprehensive report prepared and circulated to Railways.

The Boiler Maintenance Welding Code has been finalized and is under print. The printed copies will issue during the year 1948-9.

The Indian Standards Institution, which was inaugurated at the beginning of 1947, maintains close liaison with this office. The Central Standards Office for Railways is the representative of the Ministry of Railways on the General Council of the Institution, its Working Committees, and 13 Section Committees.

Steel Girder Bridges—

Permanent Way Tools.—Two revisions in the Indian Railway Standard Civil Engineering Specifications are of considerable importance, namely:

(i) Specification for steel girder bridges,

(ii) Specification for permanent way tools.

With regard to permanent way tools, emphasis has been laid more on the hardness of the material than on its chemical composition, as the previous specification tools, although up to the specification, did not, in some cases, give satisfaction.

Library.—The Engineering side of the Library which was previously in Simla was brought down to Delhi during the year. The library is now a combined library for the Civil, Mechanical, Research and Metallurgical Sections of the Central Standards Office and contains over 1,190 books and about 630 catalogues. During the year, 90 new books were added to the library.

Journals and periodicals from 33 institutions and firms are being received regularly for circulation and record purposes. A technical index has been provided both on the mechanical and civil side to provide a complete Information Bureau for the use of the office. A card index record of trials and patent watch is also maintained.

The Office is a member of the following institutions and regularly receives their publications which are circulated and used for reference purposes:

(1) Association of American Railroads.

(2) American Society for Testing Materials.

(3) Institute of Welding—as Industrial Corporate Member—Class II.

(4) British Cast Iron Research Association.

(5) British Non-ferrous Metals Research Association.

(6) The Indian Institute of Metals.

(7) Indian Roads Congress, New Delhi.

STANDARDIZATION COMMITTEES.

109. Locomotive Standards Committee.—The Locomotive Standards Committee met in December 1947, and dealt with points which had arisen since 1 April 1947, in connection with locomotive design and fittings. Recommendations were made on the following subjects :—

(1) Investigation to determine a suitable alloy for fusible plugs for use in steel fireboxes.

(2) Improved designs of fire-grates.

(3) Investigation regarding the general application of Mechanical Stokers to locomotive with a view to use low grade non-coking coals.

(4) Suitability of ' Joco ' regulator valve.

(5) Suitable design of Blow-down valve.

(6) Designs of solid cast iron piston heads.

(7) Design of a ' Timken-type ' cross-head piston rod connection with Alligator and Laird pattern cross-heads.

(8) Desirability of equipping ' WP ' locomotives with Capretti valve gear.

(9) Design of drive for the piston valve by rocking shaft arrangement and the ' Peninsula valve gear '.

(10) Suitability of ' Hoffman ' roller bearing axleboxes as a permissible alternative to Skefko and Timken designs.

(11) Great Indian Peninsula Railway's design of engine bogie having the desirable feature of a constant resistance centring device.

(12) Modernization of existing ' XB ' and ' XC ' locomotives.

(13) New design of Broad Gauge goods locomotives 2-8-2 ' W.G. ' type.

(14) Capacities of locomotives tenders for future standards.

(15) Detailed examination of the design of prototype ' WP ' locomotives and modifications considered desirable for incorporation in the particular specification for bulk orders.

(16) Selection of maintenance circulars and instruction sheets for various fittings on locomotives on which controlled instructions to staff are necessary.

(17) Investigation into the design of a radial arm pony truck with simplified swing link suspension utilizing single pin links.

(18) Finalization and confirmation of modifications to be carried out to ' X ' class Pacific Broad Gauge and Metre Gauge class locomotives in accordance with recommendations of the Pacific Locomotive Enquiry Committee.

Results of trials of experimental fittings were considered and nine trials were closed. In six instances fittings that had been under trial were considered satisfactory and one of these five was adopted as standard. New trials have been introduced with six experimental fittings.

110. Carriage and Wagon Standards Committee.—The Carriage and Wagon Standards Committee met during the year and recommendations were made on the following subjects :—

(1) The adoption of aluminium alloy sheets and sections to the fullest practicable extent for interior and exterior application to coaching and goods stock in order to conserve steel.

(2) The designs for the proposed Broad Gauge 11′-8″ and Metre Gauge 9′-4″ coaches, together with the improved scale of amenities.

(3) Lightweight bogies for 11′-8″ stressed-skin coaches, Broad Gauge.

(4) Design of Metre Gauge cattle wagon.

(5) Design for a general service wagon also suitable for coal traffic by provision of sliding roof hatch.

(6) Design of lightweight all-welded 'covered' and 'open' type 4-wheeled wagons.

(7) Design for a parcel and motor van utilizing aluminium sheets for the body.

(8) Design of 150-ton well wagon for transport of consignments such as large transformers, marine boilers, heavy machinery, etc.

(9) The projected trials of roller bearings for mail rakes on five major railways.

(10) The suitability of synthetic resin bonded plywood for interior panelling of coaches.

(11) Research to evolve the most suitable design of coach roof ventilator for indigenous production.

(12) The need for improving the standard of comfort in Broad Gauge brake vans.

111. Bridge Standards Committee.—This Committee made recommendations with respect to the following subjects:

(1) A code for liquid retaining structures in reinforced concrete.

(2) Platform roofs with suspended steel work.

(3) Designs for common deck for road-rail bridges.

(4) Riveted type goods sheds.

(5) Revision of certain clauses in Steel Bridge Code.

(6) Alternative design for 155 ft. girders for broad gauge M. L. loading with welded members.

(7) Steel sleepers on bridges.

(8) Racking forces on end spans of multiple span bridges.

112. Track Standards Committee.—The following subjects were dealt with by the Committee:

(1) Layout of switch diamonds on curves.

(2) Revision of 90 R rail section.

(3) Effect of various tyre profiles on wear of wing and stock rails.

(4) Heat-treated fishplates.

(5) Mild steel stretcher bars.

(6) Design and use of spring crossings.

(7) Permissible wear on wing and point rails.

(8) Types of creep anchors.

(9) Cant of rails on bridges.

(10) Wheel profiles for light riding trollies.

113. Signalling and Interlocking Standards Committee.—This Committee made recommendations on the following subjects:

(1) One and two armed tubular signals.

(2) Design of directional point indicators.

(3) A specification for paper insulated cables.

(4) A specification for binding wire for double wire signalling.

(5) A specification for rubber compound cables.

(6) Investigation into single spring double-wire clutch driven levers.

(7) Certain alterations in the Manual of Instructions for installation and maintenance of Signalling and Interlocking.

(8) Improvement in signal burners.

(9) Investigation of breakages of signal wires.

(10) Design of gauges for point rodding joints.

114. General.

(1) A committee was formed to investigate ways and means of introducing welded construction in structures with particular reference to bridges, with a view to saving steel. Fabricators were represented on this Committee.

(2) Investigations were initiated with a view to introducing aluminium alloys in bridge construction.

(3) Investigations were initiated with a view to obtaining a rationalized section for 90 lb. rails.

(4) Investigations were carried out in connection with the strength of various tracks with reference to the running of WP engines.

(5) Liaison was established with a number of research and other stations in India and exchange of technical literature with foreign institutions was arranged.

(6) An officer from the Central Standards Office for Raiways representing the Ministry of Railways sat on the following Committees during the year :

(*a*) Bridge Structures Committee of the Indian Roads Congress.

(*b*) Research Committee of the Central Board of Irrigation.

(*c*) National Committee for India for the International Conference on Soil Mechanics and Foundation Engineering.

(*d*) Permanent Committee for Standardization of Methods and Apparatus used in Soil Testing and Classification of Soils.

(*e*) Sub-Committees of the Council of Scientific and Industrial Research.

The Chief Controller of Standardization is the Technical Adviser to the Government of India (Ministry of Works, Mines and Power) on matters relating to boilers. He is also a member of the Central Boiler Board.

115. Research and Development Branch.

(*a*) MECHANICAL SECTION was concerned during the year with a number of items of investigations. Reference to the more important of these is made below :

The Mechanical Research Section continued its research on locomotives and wagon stock and co-operated with the respective drawing offices in the design features for standardization.

The Dynamometer Car was engaged on a series of trials with different types of grates on AWE locomotives and reports on these trials have been submitted. A further series of trials was conducted on NM Garratt locomotives also with a view to determining the most suitable grate for burning low grade non-coking coals. A further set of trials is projected for the following year on grates of smaller area than these two locomotives already tested so as to cover as wide a range as possible of combustion rating.

One trial was made on an XE_1 locomotive fitted with Mechanical Stoker and it was considered that further tests on the Mechanical Stokers should be deferred till the operating staff had acquired greater experience with this type of equipment.

Complete rating and performance trials were made on prototype WP locomotives during the course of the year and reports were submitted to serve as a basis for framing the specifications for a bulk order of passenger locomotive power.

Oscillograph apparatus was employed for stress recording of several members of an Indian Railway Standard covered wagon with a view to reduction in weight of those members which were not taking their fair share of the load under impact, vertical or horizontal. As a result of these tests certain modifications to the underframes were suggested and a modified underframe is being manufactured at Jhansi for further tests in the following year.

Locomotive oscillation tests were made on the XP locomotive, the WL locomotive and the WP class locomotive. In the case of the XP locomotive tests were confined to the measurement of oscillatory movements. The WL tests included special trials to measure longitudinal horn cheek pressures in addition to the lateral flange forces. The WP trials which were conducted essentially to determine the lateral flange forces were made both with the engine as delivered and under a worn condition artificially produced by machining clearances to values considerably higher than the normal condemning limits.

Seismic trials and special rolling tests were conducted on the WL and WP locomotives to determine their rolling periods.

Special slip tests were undertaken on the WP locomotive at speeds of 5·6 Revs./sec. (67 m.p.h.) to determine the stresses in the rails caused by hammer blow.

A request was received from the Great Indian Peninsula Railway that this office should undertake an investigation of certain bogie derailments that had occurred occasionally during the last 15 years on their BESA ' D ' class locomotives. The matter is under investigation.

Demands from several Railways that they should be permitted to run their AWD/CWD locomotives to speeds of 50 m.p.h. or more have made it necessary to plan for measurement of flange forces at speeds of 45 m.p.h. and above. This work will be undertaken in the following year.

The Mechanical Research Branch has been responsible for certain proposed alterations to the valve gear of XB and XC locomotives to improve their operating efficiency. This section has also made a contribution towards the standardization of tenders and has prepared outline designs for a WG locomotive which will operate on goods service as a sister engine to the WP which has been accepted as a standard Broad Gauge passenger locomotive.

A honey-comb type of grate has been developed and is being fitted to certain locomotives for trials with other grates in the following year.

(*b*) Civil Section. A. *Structure.*—Investigations were initiated with a view to determining the strength of welded battened struts.

Arrangements were also started for ascertaining the strength of steel trough decks and steel sleepers.

B. *Track and Soil Mechanics.*—Arrangements were made to construct a Soil Mechanics Laboratory and orders were placed for certain essential equipment for this laboratory.

Arrangements were also initiated with a view to determining the lateral strength of track with various types and densities of sleepers.

C. *Building Research.*—Research on building construction was initiated and a Building Research Officer appointed. The following points are being investigated :

(1) Cheap construction of buildings for staff particularly of the lower categories. ...

(2) Stabilized soil construction in Adobe and Pise together with a suitable waterproof plaster.

(3) Cheap arch roofs with adequate waterproofing and insulation properties.

(4) Mass-produced prefabricated frames with non-load bearing panels, and frameless roofs.

(5) Investigation into various substitute materials for building construction.

(c) METALLURGICAL AND CHEMICAL SECTION.—Arrangements to carry out research in regard to jointing composition and wear properties of non-ferrous metals broke down and work relating to these two subjects, which have progressed to some extent, had to be held in abeyance owing to the partition of the country, as they were based on the North Western Railway Laboratory at Moghalpura. Arrangements are being made to transfer the work elsewhere.

Trials of jointing composition, one imported and the other devised by the Council of Scientific and Industrial Research, have been completed. Investigations in regard to a suitable fusible plug alloy have been concluded during the course of the year.

The British Cast Iron Research Association and the British non-Ferrous Metals Research Association were consulted on the subjects of cupola design and cast iron manufacturing practice and the possibility of making non-ferrous alloys on new lines with particular reference to Indian conditions.

Ferro alloys and innoculants for the experimental manufacture of high duty cast iron have been ordered and a number of them have been received. Orders were also placed for an Avery-Brownsdon Machine and a Thurston Machine.

Investigations of failures of locomotive parts were carried out on receipt of reports from railways.

The Central Standards Office for Railways was represented on the Working Committee for Non-ferrous Metals Manufactures.

No meeting of the Metallurgists and Chemists Sub-Committee of the Indian Railway Conference Association was held during the year under review.

CHAPTER VII

STAFF

116. Number of Staff.—The total number of employees (permanent and temporary) on all Indian Railways and in the office of the Railway Board and other offices subordinate thereto, excluding staff employed on construction, at the end of the year 1947-8 was 823,712 as compared with 771,993 at the end of 1946-7. The figures exclude, for purposes of comparison, the number of staff on the Bengal Assam and North Western Railways and Eastern Punjab and Assam Railways. The total route mileage at the end of the year was 33,985 inclusive of Assam and Eastern Punjab Railways.

117. Cost of Staff.—The following statement shows the number and cost of all staff, gazetted and non-gazetted, permanent and temporary, open line and construction, employed on Class I Railways during the years 1946-7 and 1947-8. Labour employed by contracts is not included:—

Railway.	Year.	Number of staff on 31 March. — Open line. — Gazetted Officers.	Open line. — Non-gazetted employees.	Open line. — TOTAL.	Construction. — Gazetted Officers.	Construction. — Non-gazetted employees.	Construction. — TOTAL.	Gazetted Officers on loan from the Indian Audit and Accounts Service.	† Cost of staff during the year ending 31 March. — Gazetted Officers.	Non-gazetted employees.	TOTAL.	Total including staff on loan from the Indian Audit and Accounts Service.
1	2	3	4	5	6	7	8	9	10	11	12	13
									Rs.	Rs.	Rs.	Rs.
Assam	1947	..	..	..	..	..	..	..	..	..	..	..
	1948	37	31,164	31,201	..	..	..	..	5,49,064	1,56,76,346	1,62,25,410	1,62,25,410
Bikaner State	1947	19	5,504	5,523	..	..	..	..	1,78,020	19,10,856	20,88,876	20,88,876
	1948	21	5,537	5,558	..	..	..	..	1,81,172	28,70,620	30.51,792	30,51,792
Bengal Nagpur	1947	198	100,597	100,795	10	492	502	..	39,02,593	7,45,57,016	7,84,59,609	7,84,59,609
	1948	261	102,069	102,330	8	548	556	..	40,93,936	8,57,54,860	8,98,48,796	8,98,48,796
Bombay, Baroda and Central India	1947	172	86,043	86,215	..	1	1	..	36,28,757	7,15,61,491	7,51,90,248	7,51,90,248
	1948	158	85,623	85,781	..	1	1	..	34,17,277	7,86,90,593	8,21,07,870	8,21,07,870
East Indian	1947	276*	184,625*	184,901*	23*	4,855	4,878*	1	72,86,092	11,77,90,268	12,50,76,360	12,51,07,036
	1948	313	218,314	218,627	19	3,462	3,418	..	76,28,048	16,48,26,078	17,24.54,126	17,24,68,921
Great Indian Peninsula.	1947	253	153,854	154,107	..	..	..	2	52,89,015	9,38,27,523	9,91,16,538	9,91,24,950
	1948	238	157,594	157,832	..	..	..	2	50,97,240	10,44,75,021	10,95,72,261	10,96,26,747
Jodhpur	1947	47	9,444	9,491	..	..	..	1	5,48,166	66,96,124	72,44,290	72,81,207
	1948	41	9,280	9,321	..	..	..	1	6,18,995	75,55,384	81,74,379	82,03,654
Madras and Southern Mahratta.	1947	163	72,826	72,939	..	..	..	..	32,43,411	4,54,87,209	4,87,30,620	4,87,30.620
	1948	158	77.381	77,539	..	..	..	..	29,27,797	5,28,25,687	5,57,53,484	5,57,53,484
Mysore State	1947	46	9,084	9,130	1	3	4	..	2,55,496	40,22,746	42,78,242	42,78,242
	1948	43	9,023	9,066	..	..	..	..	2,33,472	49.06,351	51,39,823	51,39,823
Nizam's State	1947	79	17,494	17,573	3	168	171	..	11,68,109	1,28,91,040	1,40,59,149	1,40,59,149
	1948	81	20,094	20,175	4	234	238	..	11,31,123	1,79,82,789	1,91,13,912	1,91,13,912
Eastern Punjab	1947	..	..	..	6	..	..	..	..	..	..	..
	1948	59	45,511	45,570	3	74	77	..	9,46,738	2,27,03,903	2,36,50,641	2,36,50,641
Oudh Tirhut	1947	121	45,692	45,813	..	..	..	..	15,56,452	2,32,88,563	2,48,45,015	2,48,45,015
	1948	133	50,271	50,404	..	..	..	1	16,32,325	3,57,14,453	3,73,46,778	3,73,59,278
South Indian	1947	153*	52,853*	53,006*	..	..	..	..	24,22,799	3,53,56,951	3,77,79,750	3,77,79,750
	1948	136	53,355	53,491	..	..	..	..	24,43,854	4,54,11.909	4,78,55,763	4,78,55,763
Railway Clearing Accounts Office.	1947	5	2,188	2,193	..	..	..	2	86,672	30,96,702	31,83,374	32,29,501
	1948	6	1,933	1,939	..	..	..	1	73,796	29,98,244	30.72,040	31,04,887
TOTAL	1947	1,532	740,204	741,736	37	5,519	5,556	6	2,95,65,582	49,04,86,489	52,00,52,071	52,01,74,203
(*Excluding* Assam & E. P. Railway)	1948	1,589	790,474	792,063	31	4,245	4,276	5	2,94,79,035	60,40,11,989	63,34,91,024	63,36,34,927
(*Including* Assam & E. P. Railway)	1948	1.685	867.149	868.834	34	4.319	4,353	5	3,09,74,837	64,23,92,238	67,33,67,075	67,35,10,978

*Represents revised figures for 1946-7 due to changes made by the Railway Administrations in the figures published last year.

† The figures of cost represent pay, allowances, passages, provident fund contribution and gratuity.

A comparison of the figures for 1947-8 with those for the previous year shows that the total number of staff employed on the open line of Indian Government Railways excluding Assam and Eastern Punjab Railways increased by 47,923 during the year, while the number of construction staff decreased by 1,343.

The total cost of staff including that of staff on loan from the Indian Audit and Accounts Service excluding Assam and Eastern Punjab Railways increased by Rs. 10,56,59,017 during the year. Increases were recorded both in the number and cost of staff on Indian Government Railways. [See Appendix C, Graph No. (ix).] The increase in the number and cost of staff is due to the amalgamation of portions of the old Bengal Assam Railway with the East Indian and Oudh Tirhut Railways and the taking over of the Kanchrapara Workshops by the East Indian Railway on partition of the country. The increase in cost is also partly due to implementation of the Pay Commission's recommendations.

118. Direct recruitment to the Superior Service.—By direct recruitment 104 appointments were made to the Superior State Railway Services during the year. These were distributed among the various departments, as shown below :—

Departments	*No. of appointments*
Engineering	26
Accounts	4
Establishment	8
Transportation (Traffic) & Commercial	16
Transportation (Power) & Mechanical Engineering	50
Other Departments	—
TOTAL	104

119. Promotions.

(1) **Superior Services.**—For the year 1947-8, 15 vacancies in the Superior State Railway Services were earmarked for promotion from Class II and Class III services. It was not, however, possible to complete the selection of suitable staff for filling up the vacancies during the year.

(2) **Lower Gazetted Service.**—Twelve promotions were made to the Lower Gazetted Service in the various departments.

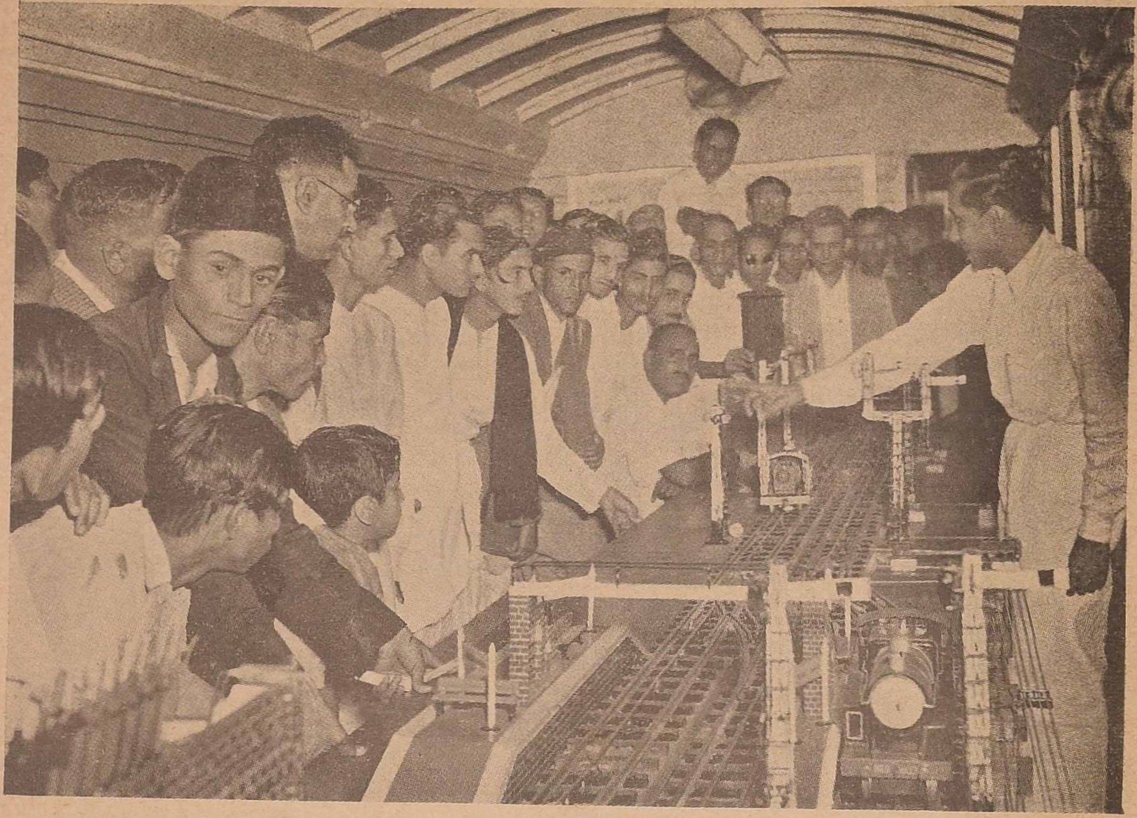
120. Railways and labour.

(1) **Adjudicator's Award.**—Reference was made in paragraph 85 of the last report to the appointment of Mr. Justice Rajadhyaksha to adjudicate on the points of dispute relating to hours of work, periodic rest, leave reserves, leave rules, and holiday concessions, applicable to staff on Railways. Mr. Justice Rajadhyaksha submitted his award to the Government on 15 May 1947. The award was published for general information in March 1948 and has been under consideration by Government during the year.

(2) **All-India Railwaymen's Federation.**—Our relations with labour continued to be satisfactory during the year, and a special meeting was held on 1 July 1947 between the Railway Board and the Negotiating Committee appointed by the All-India Railwaymen's Federation at their Biennial Convention held at Gorakhpur on the 7 June 1947. The following subjects were discussed at the meeting :—

(1) the views of railway labour on points arising out of the Report of the Central Pay Commission; including the continuance or otherwise of grainshop concessions;

ALL-INDIA EXHIBITION, CALCUTTA.



Railway Pavilion.

PLATE NO. 26.—"*Visitors keenly waiting the 'Block System' demonstration; Railway Guide explaining*".

PLATE NO. 27.—MOGHALSARAI—"*Left Wing of Kitchen Block*"—*Indian Drivers' Running Room.*

(2) retrenchment;

(3) confirmation of temporary staff who had completed one or two years' service, in accordance with the recommendations of the Pay Commission;

(4) extension of service conditions obtaining on Indian Government Railways to other Indian Railways; and

(5) Staff Councils.

At a subsequent meeting between the Railway Board and the All-India Railwaymen's Federation, held on 21 and 23 January 1948, the following subjects were discussed:—

(1) anomalies in the application of the Central Pay Commission's recommendations;

(2) educational assistance to children of railway employees;

(3) confirmation of temporary staff;

(4) enforcement of Adjudicator's Award;

(5) extension of railway service privileges to employees engaged by Railway Station Committees, Institutes, Credit Societies and Staff Benefit Funds;

(6) staff problems arising out of partition;

(7) working of grainshops and grant of dearness allowance for 'B' and 'C' areas;

(8) reinstatement of those convicted for political offences and of those discharged for desertion of posts during the air-raids at Calcutta; and

(9) uniform conditions of service on all railways within the Indian Dominion.

121. Grainshops.—The Grainshop Organization, a reference to which was made in paragraph 86 of the last report, continued to function satisfactorily during the year under review. Conditions of scarcity and the rise in prices accentuated the difficulties in procurement. The measures adopted in the past to make up the deficiency caused by the reduction in the basic cereal quantum operated to the advantage of the railway worker.

During the year, Government in pursuance of a policy of gradual decontrol lifted the controls over the prices of pulses, edible oils, sugar and cereals. Further, except in regard to the major foodgrains included in the Basic Plan, movement was made free, the intention being to revive conditions of free trade. The initial effect of these measures was to attract increased quantities of foodstuffs to the free markets, but, soon, a steep rise in prices followed. This limited the stocks that could be procured and the general situation regarding supply was not substantially different from that obtaining earlier. To the railways, on the other hand, the rise in prices entailed proportionately increased losses as the subsidized sale prices in the grainshops were based on the price levels prevailing in 1943. The railway worker was thus protected through the grainshops from the further increases in the cost of living.

The partition of the country also affected the grainshop organization. The partitioning of the North Western and Bengal Assam Railways decreased the number of ration card holders dealing at the grainshops by about 109,000 and the number of static and mobile shops by 126. Expeditious and satisfactory arrangements were made to meet the requirements of food for the staff coming from Pakistan to India, and the staff proceeding to Pakistan on transfer.

The statistics* given below indicate the principal activities of the grainshops organization.

(1) No. of shops functioning at the close of the year	Static	495
	Mobile	152
	TOTAL	647
(2) No. of ration card holders dealing at the shops		862,000
(3) Principal articles sold—		(In maunds.)
(a) Cereal		10,216,000
(b) Pulses		3,368,000
(c) Sugar and *gur*		1,180,000
(d) Soap		297,000
(e) Fuel		4,916,000
(f) All cooking media		1,022,000
(g) Tea and coffee		111,000
(4) No. of staff employed in the Grainshop Organization—		(In number.)
(a) Officers		65
(b) Inspectors and supervisory staff		421
(c) Managers and other staff		9,243
(d) Class IV staff		10,482

	Rs.	AS.
(5) Cost of purchases of all grainshop articles during the year	44,85,49,000	0
(6) Total amount realized on sales	19,85,89,000	0
(7) Losses during the year—		
(a) Direct loss (on purchases)	24,44,78,000	0
(b) Indirect loss (on staff, freight, etc.)	2,97,39,000	0
(8) Average cost of purchases per employee in a month	19	3
(9) Expenditure incurred by railways per employee per month—		
(a) On sales	22	1
(b) On all overheads	2	14
(10) Relief enjoyed per employee per month depending on the area (based on the figures for March 1948 and on the difference between market prices and railway concessional prices during that month; average family taken at 3 adults).	16 to 30	12 to 0

The question of the continuance of the grainshop scheme was examined during the year in connection with the recommendations of the Central Pay Commission. In paragraph 74 of their report, it was stated that so long as any concession in the matter of supplies of necessaries of life was allowed, the assessed monetary value of such concessions was to be deducted from the sum of the dearness allowance recommended by the Commission. As a result of the examination of this question and of discussions thereon with the All-India Railwaymen's Federation, the staff were asked to choose either the full cash dearness allowance payable to other Central Government employees or the existing rates of cash dearness allowance *plus* grainshop concessions as prevailing in February-March 1947. This option was, however, to be exercised by the Federation collectively on behalf of all staff entitled to the grainshop concessions, that is, those drawing Rs. 400 and below per month. The All-India Railwaymen's Federation chose the second alternative of existing rates of cash dearness allowance and grainshop concessions, and accordingly, the activities of the grainshops were maintained at the previous level, so that the staff could obtain the maximum benefits permissible within the framework of the Provincial Rationing Rules.

* The figures are provisional.

In the course of the debates in the Constituent Assembly (Legislative) on the Railway Budget for 1948-9, grave concern was expressed over the losses sustained on the working of grainshops on railways, and Government agreed to appoint a Committee of non-official members of the Assembly to examine and report on the working of the grainshops. The appointment of this Committee, with Mr. Mohan Lal Saxena as Chairman, and Messrs. K. Santhanam and Khandubhai Kasanji as Members, was announced in a press communiqué issued by Government on the 28 February 1948. The terms of reference to the Committee were:

(1) whether the existing scheme of supplying foodgrains and other commodities to railway employees at concession rates is fair and equitable as regards categories of staff admitted to the concession, range of commodities, quantities supplied and the rates charged, and whether the organization is efficient and economical as regards procurement, stocking and distribution, and otherwise capable of giving the most satisfactory results;

(2) whether the overhead charges are reasonable;

(3) whether the existing methods of accounting, inspection and control are adequate;

(4) whether the losses that are being incurred are reasonable in the circumstances;

(5) whether the present system requires to be modified or altered in any respect; and

(6) whether the present system may be wholly or partially replaced by any other system while retaining all those benefits of the existing scheme to which the workers are reasonably entitled and keeping the cost within the limits which the railways can afford.

The Committee commenced its work on the 4 March 1948.

122. Canteens.—Mention was made, in paragraph 87 of the last report, of the progress in the establishment of canteens for the workers with a view to improving their working conditions, by the provision of inexpensive and nourishing meals or snacks, at their places of work. Eighteen more such canteens were opened on the railways. The total number of canteens at the close of the year was 26. The number of staff who patronized the canteens was on an average 26,000 per day. Most of the canteens served tea and other beverages and light snacks, while in a few, full meals were also made available.

123. Dearness Allowance.—During 1947, the rates of dearness allowance drawn by railway servants were reviewed with reference to the recommendations contained in the Central Pay Commission's Report, and, on 1 November 1947, the following orders in regard to the rates admissible were issued:—

(1) GAZETTED OFFICERS:

(A) *Married.*—

Pay.	Dearness allowance.
Rs. 251— 300	Rs. 60 per mensem.
,, 301— 500	,, 70 ,,
,, 501— 750	,, 85 ,,
,, 751—1,000	,, 100 ,,
,, 1,001—2,000	10 per cent. of pay, subject to a maximum of Rs. 150 per mensem.
,, 2,001—2,150	The amount by which the pay falls short of Rs. 2,150.

(B) *Unmarried.*—

Pay.	Dearness allowance.
Up to Rs. 1,000	10 per cent. of pay subject to a minimum of Rs. 40 and a maximum of Rs. 75 per mensem.
Rs. 1,001—1,075	The amount by which the pay falls short of Rs. 1,075.

(2) FOR NON-GAZETTED RAILWAY SERVANTS.—

(A) All non-gazetted railway servants drawing Rs. 400/- and below on whose behalf the All-India Railwaymen's Federation exercised a collective option in favour of the existing rates of dearness allowance *plus* grainshop concessions.	Dearness Allowance at existing rates *plus* grainshop concessions.

(B) *Other non-gazetted railway servants.*—

Pay.	Dearness allowance.
Rs. 401— 500	Rs. 70 per mensem.
,, 501— 750	,, 85 ,,
,, 751—1,000	,, 100 ,,

The revised rates came into force on 16 August 1947, with the exception that in the case of those who elected the Central Pay Commission Scales of pay from an earlier date these rates applied from the date of such election.

124. Railway staff and the War.—In paragraph 89 of the last report, it was stated that the improvement effected during 1945-6 in regard to the release of railwaymen from the army was maintained throughout 1946-7. The position continued to improve during the year under review with the result that on 31 December 1947, up to which figures are available, there were only one gazetted and 441 non-gazetted railway staff employed under the Ministry of Defence.

125. Railway Service Commissions.—Reference was made in paragraph 90 of the last report, that Railway Service Commissions were being constituted with headquarters at Calcutta, Bombay and Lucknow. The Commissions at Calcutta and Bombay started functioning in April 1947. The Commission at Lucknow commenced working from October 1947.

As a result of the partition of the country, the North Western Railway Service Commission came under the administrative control of the Government of Pakistan with effect from 15 August 1947. The Commission at Calcutta has been working for the Bengal Nagpur Railway only from the same date. The Eastern Punjab and Assam Railways were not included in the jurisdiction of any of these Commissions.

As an experimental measure, the Service Commissions were given the additional work of advising General Managers on appeals against penalties imposed on Class III staff. Special reports on this aspect of their work have been called for from the Service Commissions, and the comments of Railway Administrations on this subject will also be considered before this experiment is finalized.

126. Anti-corruption Organization.—During the year the drive against bribery and corruption was continued vigorously by the Special Police Establishment. Specially selected senior subordinate staff from railways were associated with the Special Police and rendered assistance in collecting useful information regarding corruption among railway employees and in the investigation of railway cases, where technical matters were involved.

During the year, 131 cases were taken up by the Special Police, of which 38 were sent up for trial in courts or before Tribunals, resulting in the conviction of 28 persons. This brings the total number of cases so far taken up to 621 and the number of persons convicted to 251. In 21 cases, the evidence was not considered sufficiently strong to secure conviction of the railway employees concerned in a court of law, and these were referred to Railway Administrations for departmental action. As a result, four employees were discharged. In order to keep the public and the general body of the railway servants informed of the measures taken and the progress made in this behalf, press notes were issued from time to time stating the

number of convictions obtained. The attention of the public was drawn particularly to the fact that both the acceptor and the tenderer of bribes were liable to punishment under the law. In addition, individual railways also continued to take action in this respect on their own initiative.

127. Labour legislation.—In paragraph 92 of the last report, it was stated that the question whether the benefit of the grant of a certain number of annual paid holidays for factory workers, as provided in the Factories (Amendment) Act, 1945, should be specifically extended to the staff working in railway factories was under examination of the Government. No final decisions were reached on this subject during the year.

Two measures affecting labour were enacted during 1947-8, namely, the Indian Trade Unions (Amendment) Act, 1947 and the Minimum Wages Act, 1948. The first, the Indian Trade Unions (Amendment) Act, 1947, makes it obligatory on the part of employers to recognize representative unions of their employees, provided the requisite conditions as specified in the Act are satisfied. It also specifies certain acts as unfair practices on the part of recognized unions and certain other acts as unfair practices on the part of employers, and prescribes penalties for such acts. The Act authorizes the Government to bring it into force from a date to be notified in the official Gazette. The Act was not, however, brought into force during 1947-8.

The Minimum Wages Act, 1948, was enacted towards the close of the financial year. The Act provides for fixing minimum rates of wages and applies in the first instance to the employments specified in the schedule attached to the Act with which the Railways are not much concerned.

128. Staff councils.—Section 3 of the Industrial Disputes Act, 1947, and part V of the Industrial Disputes (Central) Rules, 1947, provide for the constitution of Works Committees consisting of representatives of employees and workmen engaged in an industrial establishment, in which 100 or more workmen are employed. The question whether staff councils and other similar bodies functioning on railways at present might be allowed to continue without any change in their present constitution or should be re-constituted on the lines prescribed in the Act and the Rules referred to above has been under consideration during the year.

129. Provision of quarters for Railway Staff.—The Housing (Mitra) Committee in their report on quarters for the railway staff, recommended six types of quarters, *viz.*, A, B, C, D, E and F, for various classes of staff, of which four, *viz.*, A, B, C and D, were of enclosed type, *i.e.*, with courtyards, and two, *viz.*, E and F, of open type. The Railway Board have decided that only A, B, C and D types of quarters should be constructed on railways.

The standard of accommodation recommended by the Mitra Committee for the lowest type of quarters, *viz.*, 'A' for skilled and unskilled workers, consists of two main rooms each of $12' \times 10'$, a kitchen, latrine, etc. The accommodation is almost the same as for the coal miners' houses which are being built by the Ministry of Labour and the L-4 type provided by Tatas for their workmen. The other types of quarters, *viz.*, B, C, and D, are meant for the various categories of junior and senior subordinates.

The minimum standards of accommodation and amenities have been prescribed by the Board for each type of quarter. In the first instance, quarters will be provided for essential staff only. The term 'essential' is to be understood in the sense that such staff are liable to be called on duty in emergency or to attend to work at inconvenient hours, and to remain near the site of the work, and for whom no private houses are available

130. Implementation of the Central Pay Commission's recommendations.—The report of the Central Pay Commission was received by the Government of India in April 1947, and, on 16 May 1947, Government announced their decision on the Commission's recommendations regarding pay and allowances. Thereupon the question of implementing, so far as

employees of Indian Government Railways are concerned, the accepted recommendations of the Central Pay Commission in regard to pay and dearness, house-rent and compensatory allowances, was taken up for consideration by the Railway Board in consultation with Railway Administrations. The All-India Railwaymen's Federation was also afforded opportunities of discussing with the Board points in connection with the Commission's recommendations as proposed to be given effect to in the case of railway servants.

On 4 August 1947, the General Council of the All-India Railwaymen's Federation passed a resolution laying down four irreducible demands, and representatives of the Federation met the Honourable Minister for Railways on 10 September 1947. The decisions of Government on these demands were communicated to the General Secretary of the Federation on 13 September 1947. In pursuance of Government's decision on one of these demands, the General Council of the All-India Railwaymen's Federation met on 30 September and 1 October 1947, and passed a resolution accepting the Government's offer which called for the exercise of a collective option in favour of the cash dearness allowance at the existing rates, *plus* the continuance of grainshop concessions in respect of staff who were entitled to the latter. Instructions were then issued to Railways on 1 November 1947 to enable them to implement the Central Pay Commission's recommendations regarding pay and allowances in accordance with the Railway Services (Revision of Pay) Rules, 1947, which were promulgated on that date. Orders regarding compensatory, house rent and dearness allowances were included in the orders issued on that date.

At the close of the year, the recommendations of the Central Pay Commission in regard to other service conditions, such as leave and retiring benefits, were still under the consideration of Government. It should be explained that the revision of such conditions, so far as railway servants are concerned, are dependent on the decisions taken by Government in respect of Government servants other than railway employees. The final settlement of some of the issues is, therefore, expected to take some time.

131. Training of Staff.—The policy to be followed and the measures to be adopted in the matter of training of staff employed on Railways has been under consideration of the Railway Board since the termination of the war. It has been felt that it is essential to provide adequate and proper arrangements for the training of staff on each railway both on initial recruitment and for periodical refresher courses during their service. Instructions have accordingly been issued to railways to establish training schools where they do not exist and, if such school exists on any railway, to make modifications that may be found necessary to meet the present-day requirements.

132. Resettlement of demobilized *ex*-servicemen in reserved vacancies.—As stated in paragraph 98 of the Report for 1945-6, 70 per cent. of the permanent vacancies which occurred during the period from 1 June 1942 to 31 December 1945 were reserved for war service candidates to be recruited after the war. Recruitment of war service candidates to these vacancies, which commenced early in 1946, continued during the period under review. The number of *ex*-servicemen recruited up to 31 March 1948 was approximately 20,000.

133. Activities of the Medical Department.—As no reference has been made in recent reports to the provision made on the railways for medical facilities to staff, a resumé of the present position of the activities of Medical Departments may be undertaken here. The provision of hospitals, dispensaries and medical treatment has been made mainly by the State in India, though employers have also assisted by having their own medical arrangements. Prior to 1925, there was no uniformity in the medical arrangements provided on railways. Most of the Company-managed Railways had Medical Departments of their own, but of the then existing State-managed Railways, *viz.*, the North Western, Oudh and Rohilkhund, and Eastern Bengal Railways, only one had a Chief Medical Officer. All the State-managed Railways had to depend a great deal on civil surgeons of the districts traversed by them and for administrative and consultative advice on the Administrative medical officers of the provinces.

The present arrangements date back to 1925, when the Railway Board decided to appoint on the State-managed Railways special whole-time medical staff who would be better informed of the special conditions in which railway employees had to work, and, therefore, would prove of greater assistance to railway administrations in maintaining the health and efficiency of their employees. Changes in the medical organizations on railways were subsequently made, where required, until all railways had their own self-administered medical departments.

The principal functions of the Medical Department may be stated to be as follows :—

(1) Medical examination of the staff on entry into service, on promotion or periodically, to ensure that staff are physically fit for the efficient performance of their duties, and that the safety of the travelling public is not endangered by the employment of staff who are not physically fit.

(2) Preventive and prophylactic measures to keep railway staff healthy and efficient, and to guard against epidemics in or near railway colonies. Such measures are extended to include the families of railway servants.

(3) Medical attention, where necessary, to travellers and the general public using railway premises; and maintenance of first-aid facilities on the railway, including the training of staff in first-aid.

(4) Investigation, including a certain amount of research, into occupational ailments and diseases resulting from the duties that railway staff are required to perform in various localities.

In addition to these functions, the medical departments assist in the provision of staff amenities in connection with maternity, child welfare and nutrition. The functions of the medical departments include the treatment of, and attendance on, the family of a railway servant.

Railways maintain hospitals, dispensaries, and special branches, such as, x-ray, bacteriological and innoculation departments, at places where a number of staff are located. But in order to meet the requirements of employees scattered all over the line, travelling Assistant Surgeons tour in the areas allotted to them. The professional medical staff on railways consist of qualified District Medical Officers, Assistant Medical Officers and Assistant Surgeons, x-ray and laboratory specialists, nurses, dispensers, sanitary staff and anti-malarial staff. The head of the medical organization on each railway is the Chief Medical Officer.

Construction and expansion of the hospitals and dispensaries have been sanctioned from time to time as necessity has arisen. The organization and the development of medical services on Indian Government Railways have again been under consideration of the Railway Board recently. In order that the question may be fully examined, both from the point of view of the care and prevention of disease among railway staff and their families as well as from the point of view of other aspects of medical relief, like maternity, child welfare and sanitation, a Divisional Medical Officer was placed on special duty in October 1945, to investigate the whole question and to submit a report. This report is under examination.

CHAPTER VIII

AMENITIES FOR PASSENGERS

134. General.—No large-scale programme for the provision of amenities for passengers during the year under review could be undertaken, as the railways were pre-occupied in their efforts to meet the situation created by the transfer to Pakistan of experienced railway staff of certain essential categories, the holding-up of stock, and dislocation of communications caused by mass migrations and communal disturbances. The improvements detailed below were, however, carried out during the year.

135. New third class carriages.—105 new third class carriages conforming to the approved standard laid down in 1939 were constructed and placed in service as against 76 during the previous year.

136. Booking offices and out-agencies.—Additional booking facilities for the greater convenience of the travelling public were provided as shown below:—

East Indian Railway.—Additional booking windows were opened at 15 principal stations and arrangements were made at 46 stations to keep them open for continuous booking. The question of reopening seven out-agencies was also under consideration.

Great Indian Peninsula Railway.—Besides reopening four stations closed during the war, additional booking facilities were provided at Pimpalgaon halt, Nargardevla, Akola, and Jubbulpore. Extra booking windows were opened at a number of stations on special occasions.

Bombay, Baroda and Central India Railway.—The Pratapgarh out-agency was reopened from 1 June 1947.

Madras and Southern Mahratta Railway.—Town booking offices were opened at Thyagarayanagar (Madras), Bijapur and Guntur for booking of passengers, and also for outwards parcels and goods at Thyagarayanagar (Madras).

Oudh Tirhut Railway.—Out-agencies for goods and parcel traffic at Almora, Nainital, Rani Khet and Bhowali in Kumaon Hills, at Nowgarh, Shohratgarh and Marufganj in the plains were kept open.

South Indian Railway.—A portion of the left luggage room at Egmore (Madras) was converted into women's booking office. At Madura in order to relieve the congestion in the main booking offices, one of the two festival booking offices is being utilized for suburban short distance traffic and the other for women. An additional booking counter was also opened at Mangalore. Further, five new out-agencies were opened during the year in addition to the reopening of three train halts that were closed during the war.

Bengal Nagpur Railway.—City booking agencies with door-to-door colllection and delivery services were opened at Tatanagar (Jamshedpur Town) and Cuttack. Out-agencies were also opened at Hazaribagh Town (*viâ* Ramgarh Town Railway station) and Tamluk (*viâ* Panchkura Railway station).

137. Waiting rooms and waiting halls.—During the year under review some additional waiting rooms and waiting halls were provided, and improvements effected to the existing ones.

Bengal Nagpur Railway.—Separate waiting accommodation for third class lady passengers was provided at Drug, Mahendragarh, Tumsar Road, Raj-Nandgaon and Anuppur stations. An upper class waiting room was also provided at Contai Road.

East Indian Railway.—Improvements in the shape of provision of sanitary fittings, septic tank latrines and baths were effected in the waiting rooms at Gaya, Dildarnagar, Mahupur, Gomoh and Bhagalpur.

Great Indian Peninsula Railway.—The work in respect of the waiting halls, bath-rooms, sanitary arrangements, etc., at Masjid, King's Circle and Chalisgaon was put in hand.

Madras and Southern Mahratta Railway.—A new third class waiting hall for ladies only was provided at Tirupathi East station.

South Indian Railway.—A waiting shed was provided at Teralandur Train halt besides improvements to lavatories at Villupuram, Mangalore and Chingleput stations.

138. Covered and raised platforms.—The progress made in the provision of covered and raised platforms at stations is shown in two statements below The first statement indicates the number of stations provided with covered platforms on the different railways. The next statement shows the number of stations provided with platforms above rail level.

NUMBER OF STATIONS PROVIDED WITH COVERED PLATFORMS

—	Assam.	B. N.	Bk. S. †	B., B. & C. I.	E. I.	G. I. P.	Jodhpur.	M. & S. M.	Mysore State	N. S.	E. P.	O. T.	S. I.	Total class I Railways.
(1) Total number of stations open for passenger traffic.	246	572	111	607	867	557	116	500	127	213	350	514	581	5,361
(i) Class D (or flag) stations.	55	65	33	116	126	72	40	69	11	49	88	48	137	909
(ii) Other than class D (or flag) stations.	191	507	78	491	741	485	76	431	116	164	262	466	444	4,452
(2) (i) Number of stations at which there are two or more platforms.	21	83	*	112	479	185	6	70	8	24	74	38	85	§1,185
(ii) Total number of platforms at such stations.	46	176	*	283	1,314	444	18	185	18	58	194	100	224	§3,060
(iii) Total number of covered platforms at such stations.	3	4	*Nil*	180	276	127	2	67	7	14	96	17	97	890
(iv) Percentage of (iii) to (ii).	6·5	2·3	*Nil*	63·6	21·0	25·4	11·1	36·2	38·9	24·1	49·0	17·0	43·3	29·1
(3) (i) Number of stations other than class D at which there is only one platform.	170	433	*	397	260	301	70	361	108	140	189	428	359	§3,216
(ii) Number of such stations at which there are covered platforms.	*Nil*	1	*Nil*	5	56	4	*Nil*	22	3	*Nil*	6	*Nil*	8	105
(iii) Percentage of (ii) to (i).	*Nil*	0·23	*Nil*	1·26	21·5	1·00	*Nil*	6·09	2·80	*Nil*	3·00	*Nil*	2.23	3·26

* Information not furnished by the railway.

† Figures for the year 1946-7 have been used in the absence of the proper returns from the reporting railway.

§ Total exclusive of Bk. S. Railway.

NUMBER OF STATIONS PROVIDED WITH PLATFORMS ABOVE RAIL LEVEL

—	Assam.	B. N.	Bk. S.	B., B. & C. I.	E. I.	G. I. P.	Jodhpur.	M. & S. M.	Mysore State.	N. S.	E. P.	O. T.	S. I.	Total class I Railways.
(1) Total number of stations open for passenger traffic.	246	572	111	607	867	557	116	500	127	213	350	514	581	5,361
(i) Class D (or flag) stations.	55	65	33	116	126	72	40	69	11	49	38	48	137	909
(ii) Other than class D (or flag) stations.	191	507	78	491	741	485	76	431	116	164	262	466	444	4,452
(2) (i) Number of stations other than flag stations at which there are more than one platform.	21	76	3	102	463	189	6	70	8	24	73	31	85	1,151
(ii) Total number of platforms at such stations.	46	159	6	262	1,167	454	18	185	18	48	194	78	224	2,859
(iii) Total number of platforms at such stations above rail level.	7	135	*3	250	783	434	14	163	11	48	144	63	153	2,208
(iv) Percentage of (iii) to (ii).	15·2	83·0	*75·0	95·4	67·1	89·8	77·8	89·8	68·8	100·0	74·0	80·8	68·3	77·2
(3) (i) Number of stations at which there is only one platform.	225	486	108	456	335	359	110	430	119	189	216	483	496	4,012
(ii) Number of such stations at which platforms are above rail level.	8	127	23	202	192	205	7	281	41	97	87	247	306	1,823
(iii) Percentage of (ii) to (i).	3·5	26·0	21·3	44·3	57·3	51·8	6·36	65·4	34·4	51·3	40·0	51·1	61·7	45·4

* Figures for the year 1946-7 adapted in absence of the proper returns from the reporting railway.

139. Additional platforms and sheds.—Among the different works on improvement or extension of existing platforms and provision of additional facilities either completed or commenced during the year, the following items deserve mention.

On the East Indian Railway, rail level platform was provided at Tewaripur and one island platform at Hakeempur station. The work of covering platforms at Masjid, King's Circle and Chalisgaon stations on the Great Indian Peninsula Railway was put in hand. Rail level platforms at 33 stations on the South Indian Railway were raised to 1′-6″ above rail level and the platform at Kuttipuram station was extended. The raising of passenger platforms at Parmanandpur, Sitalpur, Bara Gopal, Goldinganj, Nayagaon and Dighwara stations on Oudh Tirhut Railway was taken in hand. The work of improving the platforms at 18 stations on the Madras and Southern Mahratta Railway, which was put in hand in **1946-7**, was in progress. On the Bombay, Baroda and Central India Railway, work was taken in hand for the extension of passenger platforms at Godhra and Dahanu Road and for extension of third class waiting sheds at Vedcha and Maroli.

140. Catering.—During the year high prices of foodstuffs and control over the supply of essential commodities made it difficult for railways to introduce any material improvement in their catering services. The demands of an increased number of passengers were, however, met and a satisfactory service was maintained on the whole.

Certain important changes in the system of catering were initiated during the year. The maintenance of separate refreshment rooms for first and second class passengers was discontinued, although alternative tariffs were provided. To meet a public demand, arrangements were made for the supply of vegetarian dishes to passengers in the refreshment rooms (styled European) and dining cars. The supply of beef, bacon, ham or pork in either European or Indian refreshment rooms or dining cars, was prohibited.

With a view to ensuring prompt and proper action on complaints received in respect of catering arrangements, the provision of machine numbered complaint books in refreshment rooms, stalls and dining cars was insisted upon; every vendor was also made to carry a similar pocket complaint book with him.

As an experimental measure, a refreshment trolley was berthed opposite to the women's compartments at Trichinopoly station for the supply of edibles, milk, food packets and coffee, particularly to women passengers.

Additional catering facilities were also provided as and when necessary.

141. Supply of drinking water.—Arrangements for an adequate supply of drinking water for railway passengers continued during the year. Certain railways introduced a scheme for the carriage of water and travelling watermen in third class reserved compartments on long distance trains for serving water to passengers and found this to work satisfactorily.

The use of communal adjectives such as 'Hindu' and 'Mussalman' in all cries uttered by watermen on station premises or in trains and communal labelling of *chatti* stands and water trolleys was discontinued.

142. Cleanliness of coaching stock and prevention of theft of fittings.—The question of cleanliness of coaching stock has continued to receive active attention of railways during the year under review. Sweeping and cleaning staff have been strengthened on the railways. As theft of fittings from the coaching stock showed no signs of reduction, resident conductors have been appointed as an experimental measure on many of the railways to travel with the rakes in order to try to minimize the theft of fittings.

143. Better type of lavatories for third class coaches.—Progress has been made in providing recently constructed coaches with a flushing nozzle for washing the latrine pans. Roof tanks instead of tanks on the underframes were provided with semi-rotary pumps so as to supply water by gravity instead of by hand pumping. On some of the railways the fitting of lower class latrine windows with top half clear glass and bottom half frosted glass was introduced.

In connection with the design of the proposed 11'-8" wide stock the question of the improvements in the design and fittings of lavatories, etc., in third class coaches was under consideration of the Board.

144. Passenger Guides.—As referred to earlier, a scheme was initiated for the utilization of social service workers to assist third class passengers at major stations on railways. Railways were instructed to select, in consultation with various recognized social service organizations, such as Servants of India Society, Indian Red Cross Society, All-India Women's Conference, Social Service League, Social Workers' Society, etc., men with the right training for such work. The scheme was not, however, implemented until the current year.

CHAPTER IX

ACCIDENTS

145. Major Accidents.—The details of major accidents which occurred during the year are summarized in the following paragraphs :—

On 17 May 1947, while No. 516 Down Surma Express was running between Kamalasagar and Nayanpur stations on the Akhaura-Comilla section of the Bengal Assam Railway, the engine and 9 bogies were derailed and rolled down the embankment. The casualties were heavy, 36 persons being killed and 58 injured. The approximate cost of damage to rolling-stock was Rs. 2 lakhs. This derailment was caused by deliberate tampering with the track by some person or persons unknown.

On 27 August 1947, while No. 18 Up Passenger was standing on the Up platform line at Kolaghat station on the Howrah-Khargpur section of the Bengal Nagpur Railway. No. 14 Up Passenger also entered the same line and ran into the rear of 18 Up. The casualties were 21 persons killed and 106 injured. The approximate cost of damage to rolling-stock was Rs. 87,000.

While an Up Refugee Special was being backed, on 23 November 1947, from line No. 1 to line No. 6 in Jullundur Cantonment station yard on the Eastern Punjab Railway, a trunk and a bedding of a refugee travelling on the roof of the sixth carriage from the engine fell down on the track and caused derailment of this carriage and damage to the one ahead of it. The result was 28 persons were killed and 25 injured. The approximate cost of damage to rolling-stock was Rs. 25,000.

Delhi 2 Up Refugee Special, running on 24 November 1947 through Sambhu station on the Ambala-Ludhiana section of the East Punjab Railway, entered and crashed into the Snag Dead End at that station. The engine and first four coaches behind it were derailed, 171 persons were killed and 300 injured. The approximate cost of damage to rolling-stock was Rs. 47,000.

On 8 December 1947, while No. 758 Down Goods started moving slowly from the Down Outer Signal of Kanchrapara station on the Sealdah-Ranaghat section of the East Indian Railway, where it had come to a stop, No. 16 Down Express ran into the rear of 758 Down. Seven persons were killed and 45 injured. The approximate cost of damage to rolling-stock and permanent way was Rs. 1,06,000.

On 21 December 1947, on No. 4 Down Bombay-Calcutta Mail being backed beyond the Down Main Home Signal of Hirodih Station on the Grand Chord section of the East Indian Railway, to pick up a gangman who was run over, No. 2 Down Delhi-Calcutta Mail ran into its rear. One person was killed and 53 were injured. The approximate cost of damage to rolling stock was Rs. 22,000.

146. Review of Accident Statistics.—(*a*) The total number of persons killed and injured in accidents showed during the year a substantial reduction. The number of passengers, railway servants and other persons killed, and injured in accidents on Indian Railways, exclusive of casualties in railway workshops during 1947-8 as compared with the previous year is shown in the accompanying table:—

Classification.	Killed.		Injured.	
	1946-7.*	1947-8.*	1946-7.*	1947-8.*
A. Passengers.				
(i) In accidents to trains, rolling stock, permanent way, etc.	103	299	375	763
(ii) In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	707	607	3,002	2,979
(iii) In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	4	2	11	27
TOTAL	814	908	3,388	3,769
B. Railway servants.				
(i) In accidents to trains, rolling stock, permanent way, etc.	33	21	247	195
(ii) In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	265	171	7,993	6,274
(iii) In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	31	21	21,249	15,602
TOTAL	329	213	29,489	22,071
C. Other than passengers and railway servants.				
(i) In accidents to trains, rolling stock, permanent way, etc.	41	39	95	111
(ii) In accidents caused by movement of trains and railway vehicles exclusive of train accidents.	3,270	2,958	1,402	1,463
(iii) In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	15	15	114	93
TOTAL	3,326	3,012	1,611	1,667
GRAND TOTAL	4,469	4,133	34,488	27,507

*See 'note' at end of this para.

(*b*) Of the total of 4,133 persons killed, 3,012 or 73 per cent. were other than passengers and railway servants and of this number 2,543 were trespassers and 299 were reported to be suicides.

Furthermore, 38 persons were killed on railway premises otherwise than during the movement of trains, vehicles, etc.

(*c*) As compared with the previous year,

(i) the number of passengers killed and injured in accidents to trains, rolling-stock, permanent way, etc., increased by 196 and 388 respectively, as a result of heavy casualties in one alone out of the six serious accidents on the Eastern Punjab Railway during the abnormal conditions after the partition. In this accident 171 were killed and 300 injured;

(ii) the figures of total casualties, however, show a decrease of 336 in the number reported killed and 6,981 in the injured.

The following statement shows the number of passengers killed and injured in train accidents only, *i.e.*, collisions, derailments, etc., during the last five years as compared with the number carried :—

Year.	Number* of passengers carried (in millions).	Killed.		Injured.	
		Number. †	Per million passengers carried.	Number. †	Per million passengers carried.
1943-4	828	170	0·21	493	0·60
1944-5	971	34	0·04	132	0·14
1945-6	1,093	89	0·08	253	0·23
1946-7	1,139‡	93	0·08	340	0·29
1947-8	**1,044‡**	**298**	**0·29**	**721**	**0·69**

*Represents total number carried on all railways.

†Excludes train wrecking and attempted train wrecking.

‡See 'note' at end of this para.

(*d*) On Class I Railways, the number of railway servants killed and injured in accidents due to the movement of trains, railway vehicles, etc., exclusive of train accidents, decreased by 96 and 1,703 respectively. The main causes for these accidents are analysed in the following table :—

Cause.	Killed.		Injured.	
	1946-7*	**1947-8***	1946-7*	**1947-8***
(1) Misadventure or accidental . . .	209	**148**	7,465	**5,924**
(2) Want of caution or misconduct on the part of the injured person.	49	**14**	399	**248**
(3) Want of caution or breach of rules, etc., on the part of servants other than the persons injured.	1	**1**	56	**45**
(4) Defective apparatus, appliance, etc., or want of sufficient appliances, safeguards, etc.	..	..	..	..
TOTAL .	259	**163**	7,920	**6,217**

*See 'note' at end of this para.

(*e*) The following statement analyses the accidents which occurred during the last two years, grouped under certain principal heads. A statement showing the accidents in greater detail for each railway will be found in Appendix D of Volume II of this Report :—

	1946-7*	**1947-8***
(1) Derailments not involving passenger trains .	9,609	**7,959**
(2) Running over cattle	5,066	**4,292**
(3) Accidents due to failure of engines owing to faulty material, workmanship and operation arising from the working of the running staff	3,374	**3,314**
(4) Accidents due to failure of couplings and draw gear	2,494	**2,122**
(5) Accidents due to failure of engines owing to faulty material and workmanship in the Mechanical Department . . .	1,861	**2,056**
(6) Accidents due to other rolling stock failures .	636	**396**
(7) Fires in trains at stations or bridges . .	368	**374**
(8) Derailments of passenger trains . . .	396	**308**
(9) Accidents due to failure of axles . . .	139	**267**
(10) Trains running into road traffic at level crossings	116	**192**

*See 'note' at end of this para.

	1946-7*	1947-8*
(11) Attempted train wrecking . . .	126	161
(12) Collision involving goods trains or goods vehicles	193	122
(13) Running over obstructions (other than those included under "Train wrecking", "Attempted train wrecking" and "Trains running into road traffic at level crossings")	126	108
(14) Broken rails	211	104
(15) Land slips	165	82
(16) Collisions between light engines . .	60	75
(17) Accidents due to failure of tyres and wheels	50	62
(18) Flooding of permanent way . . .	159	49
(19) Collisions involving passenger trains . .	51	48
(20) Accidents due to failure of brake apparatus .	44	45
(21) Passenger trains running in the wrong direction through points but not derailed .	73	43
(22) Train wrecking	19	42
(23) Failure of bridges, tunnels, etc. . . .	6	4
(24) Miscellaneous	275	412
TOTAL .	25,617	22,637

(*f*) The total number of accidents shows a decrease of 2,980 as compared with the previous year.

(1) Derailments not involving passenger trains still account for the largest number of accidents, *i.e.*, 35 per cent. of the total. Next in order are others, enumerated below:—

	Per cent.
Running over cattle	19
Accidents due to failure of engines due to faulty material, workmanship and operation arising from the working of the running staff	15
Accidents due to failure of couplings and draw gear . . .	9
Accidents due to failure of engines owing to faulty material and workmanship in the mechanical department . . .	9
Accidents due to other rolling stock failures	2
Fires in trains or at stations or bridges	2
Derailments of passenger trains	1
Accidents due to failure of axles	1

(2) Accidents in railway workshops accounted for the death of 16, and injuries to 14,617, railway servants or an increase of 3 in the former and a decrease of 2,584 in the latter, as compared with the previous year.

NOTE.—*Figures for 1946-7, and for previous years where given, are inclusive of *ex* Bengal Assam and North Western Railways while those for 1947-8 are exclusive of *ex* Bengal Assam and North Western Railways but inclusive of Eastern Punjab and Assam Railways for the period 15 August 1947 to 31 March 1948.

APPENDIX A.

Resolution regarding the separation of Railway from General Finances, adopted by the Legislative Assembly on the 20th September 1924 and Convention Resolution of 1943.

'This Assembly recommends to the Governor General in Council that in order to relieve the general budget from the violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry out a continuous railway policy based on the necessity of making a definite return to general revenues on the money expended by the State on Railways.

(1) The railway finances shall be separated from the general finances of the country and the general revenues shall receive a definite annual contribution from railways which shall be the first charge on the net receipts of railways.

(2) The contribution shall be based on the capital at charge and working results of commercial lines, and shall be a sum equal to one per cent. on the capital at charge of commercial lines (excluding capital contributed by companies and Indian States) at the end of the penultimate financial year *plus* one-fifth of any surplus profits remaining after payment of this fixed return, subject to the condition that, if in any year railway revenues are insufficient to provide the percentage of one per cent. on the capital at charge surplus profits in the next or subsequent years will not be deemed to have accrued for purposes of division until such deficiency has been made good.

The interest on the capital at charge of, and the loss in working, strategic lines shall be borne by general revenues and shall consequently be deducted from the contribution so calculated in order to arrive at the net amount payable from railway to general revenues each year.

(3) Any surplus remaining after this payment to general revenues shall be transferred to a railway reserve; provided that if the amount available for transfer to the railway reserve exceeds in any year three crores of rupees only two-thirds of the excess over three crores shall be transferred to the railway reserve and the remaining one-third shall accrue to general revenues.

(4) The railway reserve shall be used to secure the payment of the annual contribution to general revenues; to provide; if necessary, for arrears of depreciation and for writing down and writing off capital; and to strengthen the financial position of railways in order that the services rendered to the public may be improved and rates may be reduced.

(5) The railway administration shall be entitled, subject to such conditions as may be prescribed by the Government of India, to borrow temporarily from the capital or from the reserves for the purpose of meeting expenditure for which there is no provision or insufficient provision in the revenue budget subject to the obligation to make repayment of such borrowings out of the revenue budgets of subsequent years.

(6) A Standing Finance Committee for Railways shall be constituted consisting of one nominated official member of the Legislative Assembly who should be chairman and eleven members elected by the Legislative Assembly from their body. The members of the Standing Finance Committee for Railways shall be *ex-officio* members of the Central Advisory Council, which shall consist, in addition, of not more than one further nominated official member, six non-official members selected from a panel of eight elected by the Council of State from their body and six non-official members selected from a panel of eight elected by the Legislative Assembly from their body.

The Railway Department shall place the estimate of railway expenditure before the Standing Finance Committee for Railways on some date prior to the date for the discussion of the demand for grants for railways and shall, as far as possible, instead of the expenditure programme revenue show the expenditure under a depreciation fund created as per the new rules for charge to capital and revenue.

(7) The railway budget shall be presented to the Legislative Assembly if possible in advance of the general budget and separate days shall be allotted for its discussion, and the Member in charge of Railways shall then make a general statement on railway accounts and working. The expenditure proposed in the railway budget, including expenditure from the depreciation fund and the railway reserve, shall be placed before the Legislative Assembly in the form of demands for grants. The form the budget shall take after separation, the detail it shall give and the number of demands for grants into which the total vote shall be divided shall be considered by the

Railway Board in consultation with the proposed Standing Finance Committee for Railways with a view to the introduction of improvements in time for the next budget, if possible.

(8) These arrangements shall be subjected to periodic revision but shall be provisionally tried for at least three years.

(9) In view of the fact that the Assembly adheres to the resolution passed in February 1923, in favour of State management of Indian Railways, these arrangements shall hold good only so long as the East Indian Railway and the Great Indian Peninsula Railway and existing State-managed railways remain under State management. But if in spite of the Assembly's resolution above referred to Government should enter on any negotiations for the transfer of any of the above railways to Company management such negotiations shall not be concluded until facilities have been given for a discussion of the whole matter in the Assembly. If any contract for the transfer of any of the above railway to Company management is concluded against the advice of the Assembly, the Assembly will be at liberty to terminate the arrangements in this Resolution.

Apart from the above convention this Assembly further recommends—

(i) that the railway services should be rapidly Indianised, and further that Indians should be appointed as Members of the Railway Board as early as possible, and

(ii) that the purchases of stores for the State Railways should be undertaken through the organisation of the Stores Purchase Department of the Government of India.'

Convention Resolution of 1943.

The Legislative Assembly on 2nd March 1943 passed the following resolution:—

'Whereas it has been found that the Convention, which was adopted under the Assembly Resolution, dated 20th September 1924, and which was intended to relieve the General Budget from violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry on a continuous railway policy based on the necessity of making a definite return to general revenues on the money expended by the State, has not achieved these objects, this Assembly recommends to the Governor General in Council, that:

(i) for the year 1942-43, a sum of Rs. 2,35,32 thousand shall be paid to general revenues over and above the current and arrear contribution due under the Convention,

(ii) from the 1st April 1943, so much of the Convention as provides for the contribution and allocation of surpluses to general revenues shall cease to be in force,

(iii) for the year 1943-44, the surplus on commercial lines shall be utilised to repay any outstanding loan from the depreciation fund and thereafter be divided 25 per cent. to the railway reserve and 75 per cent. to general revenues, the loss, if any, on strategic lines being recovered from General Revenues, and

(iv) for subsequent years and until a new convention is adopted by the Assembly, the allocation of the surplus on commercial lines between the railway reserve and general revenues shall be decided each year on consideration of the needs of the railways and general revenues, the loss, if any, on strategic lines being recovered from general revenues.'

APPENDIX B.

Officers of the Ministry of Railways (Railway Board) and attached offices on the 31 March 1948.

The Hon'ble Dr. John Matthai, Minister for Transport and Railways.

Railway Board.

Mr. K. C. Bakhle . . . . Chief Commissioner of Railways.
Mr. I. S. Puri . . . . Financial Commissioner of Railways.
Dr. H. J. Nichols . . . . Member, Engineering.
Mr. F. C. Badhwar . . . . Member, Staff.
Mr. V. P. Bhandarkar . . . Member, Transportation.
Mr. R. Ramaswami Ayyar . . . Director, Finance.
Mr. W. Oldfield . . . . Director, Mechanical Engineering.
Mr. A. A. Brown . . . . Director, Traffic.
Mr. P. M. Joseph . . . . Director, Accounts.
Mr. K. P. Mushran . . . . Director, Establishment.
Mr. P. C. Khanna . . . . Director, Civil Engineering.
Mr. A. Balakrishnan . . . Director, Pay Commission (Temporary).
Mr. S. S. Ramasubban . . . Secretary.
Mr. D. B. Patel . . . . Deputy Secretary.
Mr. G. Rama Rau . . . . Assistant Secretary.
Mr. M. E. Bartley . . . . Joint Director, Establishment (Temporary).
Mr. M. R. Carr-Hall . . . Joint Director, Stores (Temporary).
Mr. D. C. Baijal . . . . Joint Director, Civil Engineering (Temporary).
Mr. K. L. Crawford . . . . Joint Director, Post-War Rating (Temporary).
Mr. Anand Mohan . . . . Joint Director, Traffic (General) (Temporary).
Mr. Rajendra Dev . . . . Joint Director, Traffic (Transportation) (Temporary).
Mr. G. Borker . . . . . Joint Director, Public Relations (Temporary).
Mr. M. R. Swaminathan . . . Joint Director, Finance (Temporary).
Mr. D. U. Rao . . . . . Deputy Director, Finance (Expenditure).
Mr. K. S. Bhandari . . . . Deputy Director, Finance (Establishment) (Temporary).
Mr. R. Subbiah . . . . Deputy Director, Mechanical Engineering I.
Mr. M. S. Murty . . . . Deputy Director, Mechanical Engineering II (Temporary).
Mr. H. L. Biswas . . . . Deputy Director, Statistics (Temporary).
Mr. E. W. Ross-Gwynne . . . Deputy Director, Tele-Communication (Temporary).
Mr. S. P. Ranganadham . . . Deputy Director, Post-War Rating (Temporary).
Mr. H. D. Awasty . . . . Deputy Director, Civil Engineering (Temporary).
Mr. D. B. Singh . . . . Deputy Director, Civil Engineering (Projects) (Temporary).
Mr. A. Hildreth . . . . Assistant Director, Traffic (Transportation) (Temporary).
Mr. Surjan Singh . . . . Assistant Director, Traffic (Commercial) (Temporary).
Mr. Tek Chand . . . . Complaints Officer (Temporary).
Mr. R. Srinivasan . . . . Assistant Director, Establishment, I (Temporary).
Mr. M. K. S. Aiyar . . . Assistant Director, Establishment, II (Temporary).
Mr. M. L. Mukherjee . . . Assistant Director, Accounts (Temporary).

Attached Officers.

Mr. D. P. Mathur	Officer on Special Duty (Temporary).
Mr. D. L. Neogy	Officer on Special Duty (Temporary).
Mr. K. Ramchandran . . .	Officer on Special Duty (Tribunal) (Temporary).
Mr. L. B. Ramchandani . . .	Officer on Special Duty (Temporay).
Mr. K. Srinivasan	Assistant to Joint Director, Public Relations (Temporary).

Indian Railway Enquiry Committee, 1947.

Pandit Hirday Nath Kunzru . . Member, Constituent Assembly of India (Legislative)	Chairman.
Khan Mohd. Yamin Khan . .	Member.
Sir George Cuffe	Member.
Mr. K. R. Rama Iyer . . .	Additional Financial Commissioner of Railways and Member.
Mr. J. N. Nanda	Member.
Mr. S. Guruswami	Member.
Mr. M. N. Chakravarty . . .	Secretary.
Mr. J. K. Mehra	Mechanical Officer.
Mr. S. K. Datta Roy . . .	Statistical Officer.
Mr. V. R. Babu Mudaliar . .	Assistant Secrtary.
Mr. D. N. Saxena	Personal Secretary to the Chairman.

Railway Grainshop Enquiry Committee.

Mr. Mohan Lal Saxena . . . Member, Constituent Assembly of India (Legislative)	Chairman.
Mr. K. Santhanam . . . . Member, Constituent Assembly of India (Legislative)	Member.
Mr. Khandubhai Kasanji Desai . .	Member.
Mr. K. L. Ghei	Secretary.

Central Standards Office for Railways.

Mr. G. E. H. Williams . . .	Deputy Chief Controller of Standardization (Mechanical).
Mr. K. F. Antia	Deputy Chief Controller of Standardization (Civil).
Mr. S. R. Woodmore . . .	Assistant Chief Controller of Standardization (Specification and Record).
Mr. T. E. St. Q. Stewart . . .	Assistant Chief Controller of Standardization (Designs).
Mr. R. H. G. da Cunha da Costa .	Research Officer (Mechanical), I.
Mr. S. B. B. S. Sindhu . . .	Research Officer (Mechanical), II.
Mr. V. Venkataramayya . . .	Research Officer (Civil), I.
Mr. H. H. Banerjee . . .	Research Officer (Civil), II.
Mr. M. V. Kamalani . . .	Dynamometer Car Officer.
Mr. R. G. Bhatwadekar . . .	Research Officer (Chemical and Metallurgical).
Mr. H. Gordon Furbisher . .	Inspecting Officer for Locomotive Boilers.
Mr. M. S. Murti	Research Officer (Electrical).

Office of the Controller of Railway Supplies.

Mr. A. R. Sarin	Controller of Railway Supplies.
Mr. Gulshan Rai	Deputy Controller of Railway Supplies.
Mr. B. C. Majumdar . . .	Deputy Controller of Railway Supplies.
Mr. R. C. Chetty	Assistant Controller of Railway Supplies.
Mr. S. K. Deb	Assistant Controller of Railway Supplies.
Mr. A. C. Mukherjee . . .	Assistant Controller of Railway Supplies.
Mr. F. W. Stevens	Assistant Controller of Railway Supplies.
Mr. G. R. Kapur	Assistant Controller of Railway Supplies.
Mr. Haqiqat Rai	Assistant Controller of Railway Supplies.

APPENDIX C.

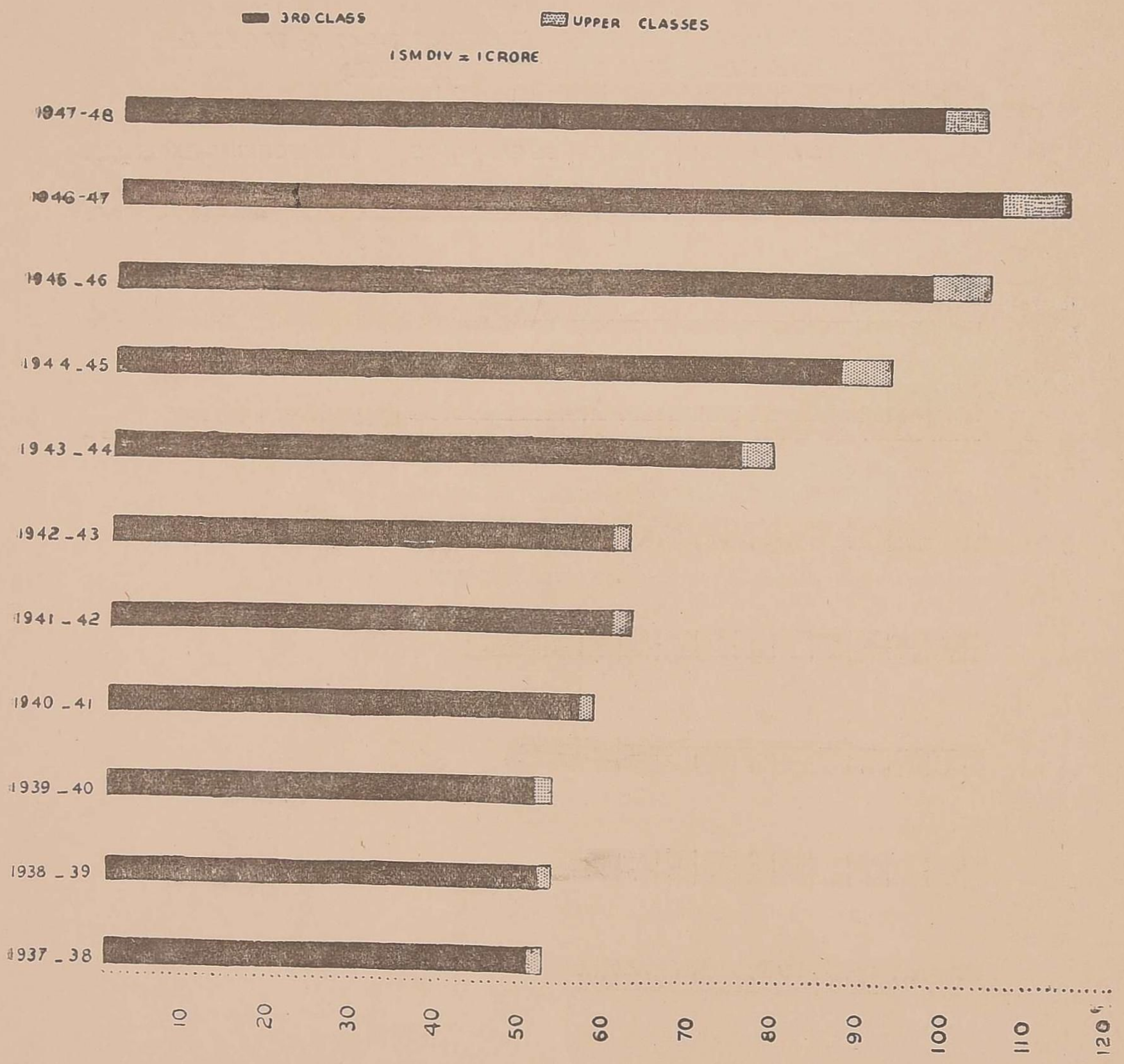
GRAPHS

TOTAL CAPITAL AT CHARGE, TOTAL GROSS EARNINGS AND TOTAL WORKING EXPENSES OF INDIAN GOVERNMENT RAILWAY LINES

(EXCLUDES N. W. & B. A. RYS. BETWEEN 1-4-47 & 14-8-47 & THE PAKISTAN RYS. THEREAFTER.)

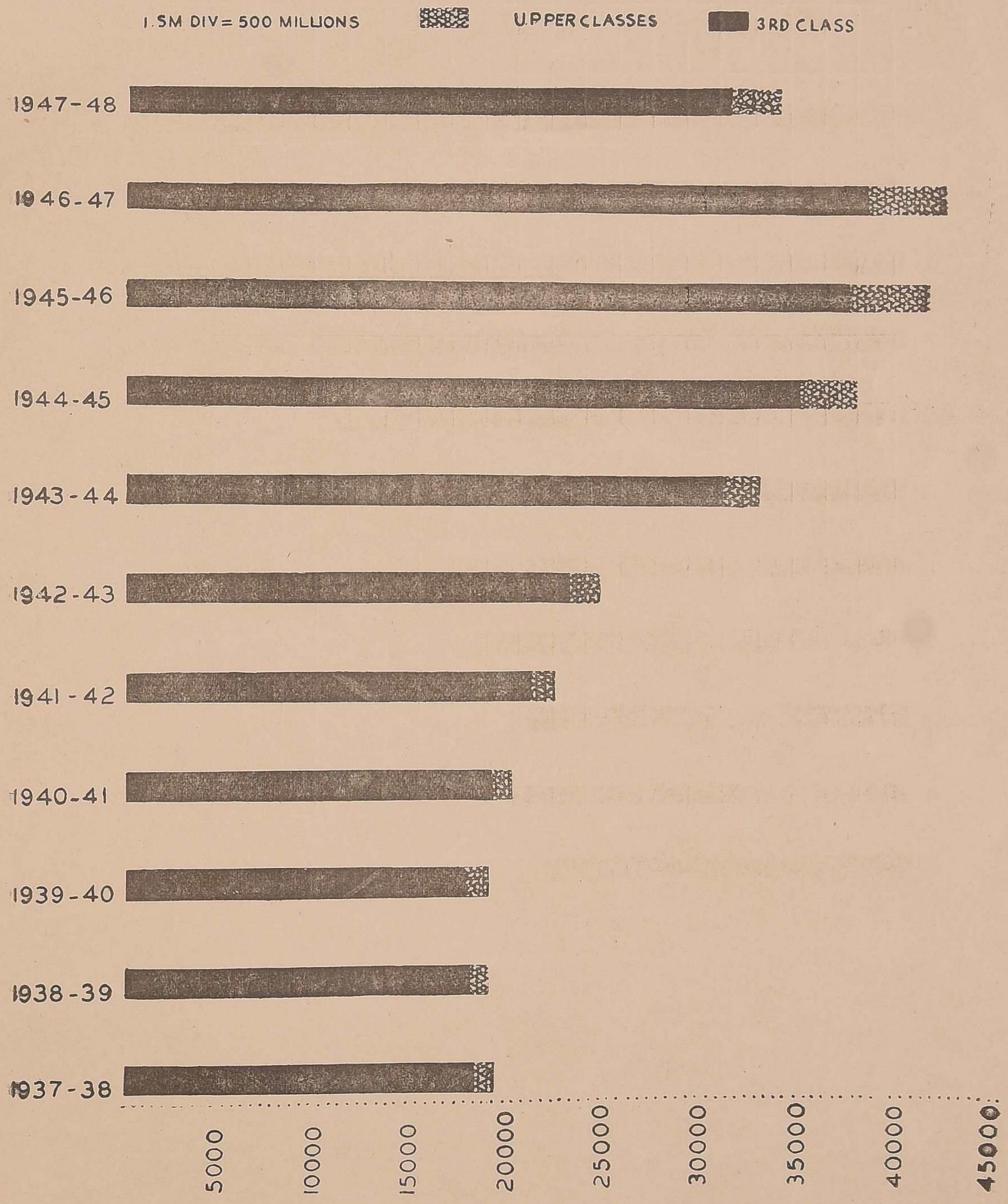
NUMBER OF PASSENGERS CARRIED ON INDIAN RAILWAYS

(EXCLUDES N. W. & B. A. RYS. BETWEEN 1-4-47 & 14-8-47 & THE PAKISTAN RYS. THEREAFTER.)



NUMBER OF PASSENGER MILES ON INDIAN RAILWAYS

(EXCLUDES N. W. & B. A. RYS. BETWEEN 1-4-47 & 14-8-47 & THE PAKISTAN RYS. THEREAFTER.)

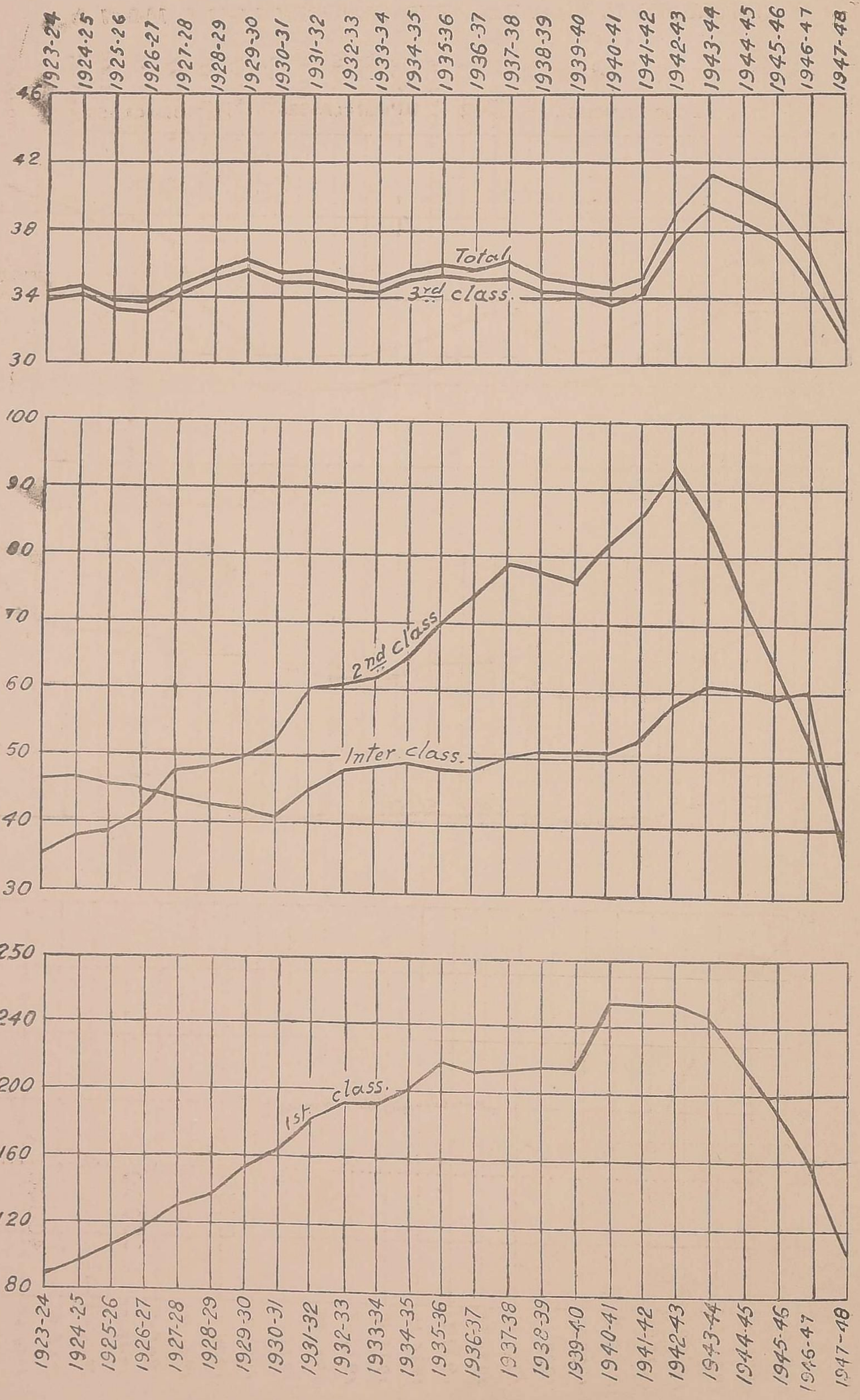


ALL INDIAN RAILWAYS

EXCLUDING BURMA RAILWAYS.

(EXCLUDES N. W. & B. A. RYS. BETWEEN 1-4-47 & 14-8-47 & THE PAKISTAN RYS. THEREAFTER.)

AVERAGE MILES A PASSENGER WAS CARRIED.

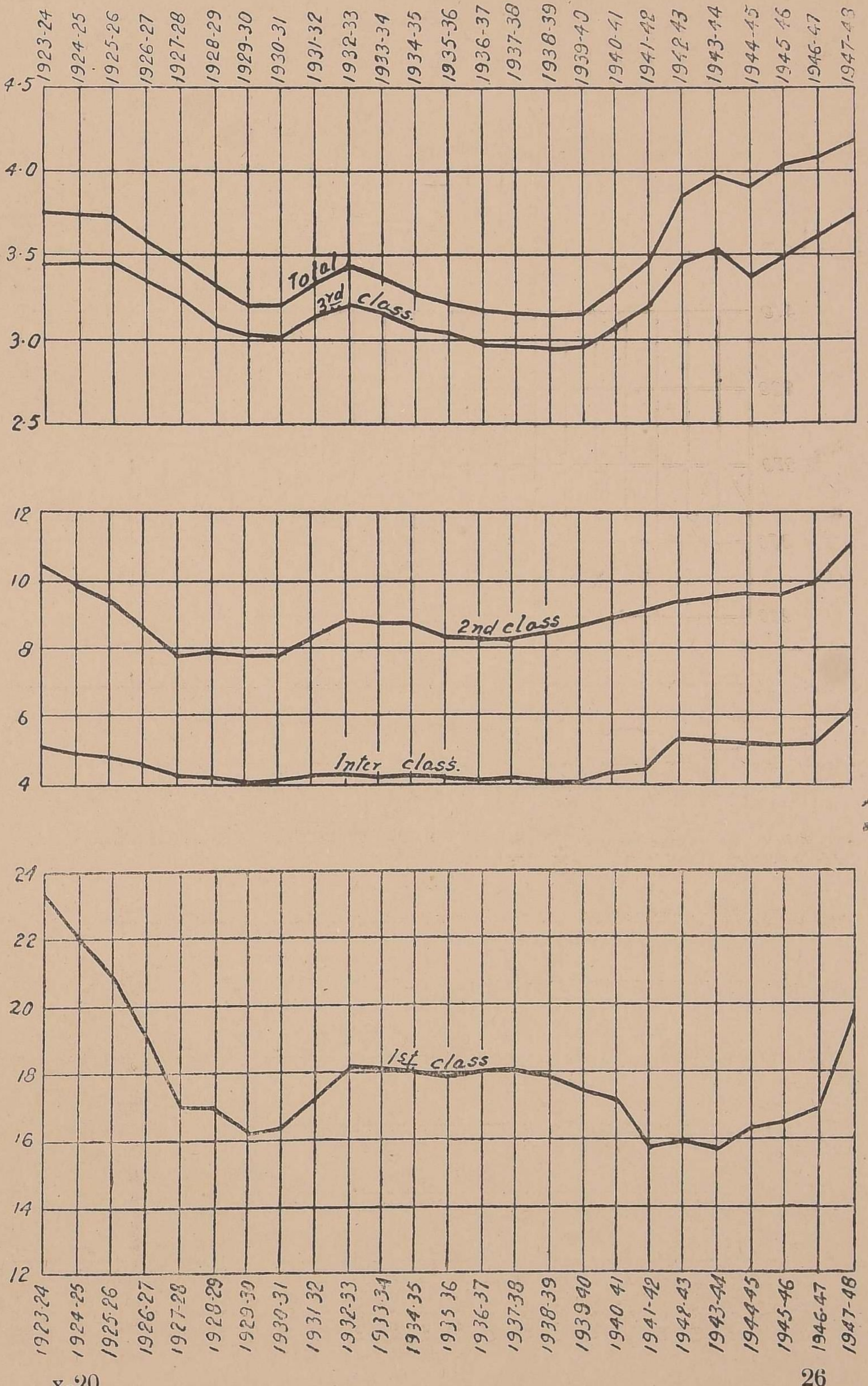


ALL INDIAN RAILWAYS

EXCLUDING BURMA RAILWAYS.

(EXCLUDES N. W. & B. A. RYS. BETWEEN 1-4-47 & 14-8-47 & THE PAKISTAN RYS. THEREAFTER.)

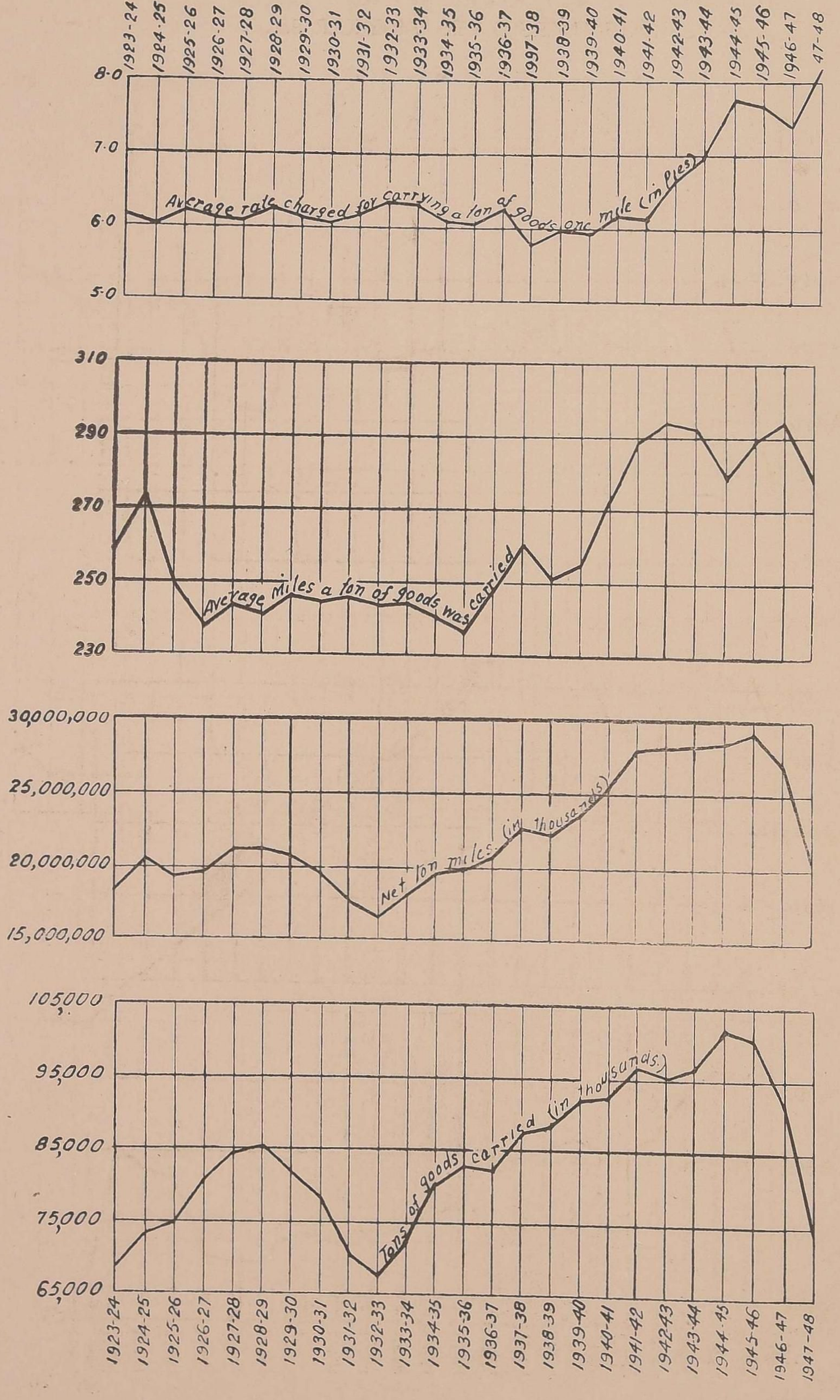
AVERAGE RATE CHARGED PER PASSENGER PER MILE (IN PIES).



ALL INDIAN RAILWAYS

EXCLUDING BURMA RAILWAYS.

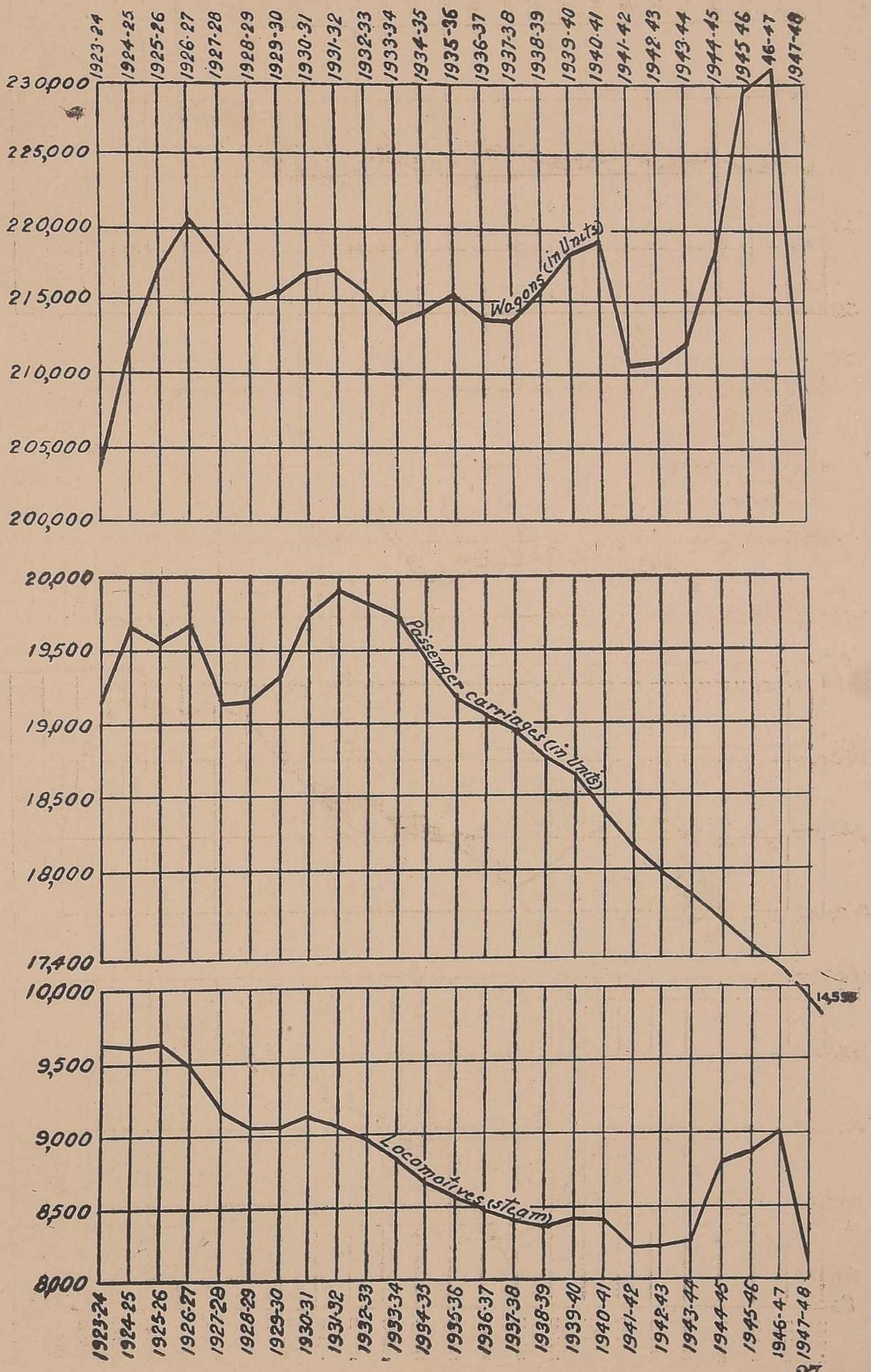
(EXCLUDES N. W. & B. A. RYS. BETWEEN 1-4-47 & 14-8-47 & THE PAKISTAN RYS. THEREAFTER.)



ROLLING STOCK IN SERVICE ON INDIAN RAILWAYS

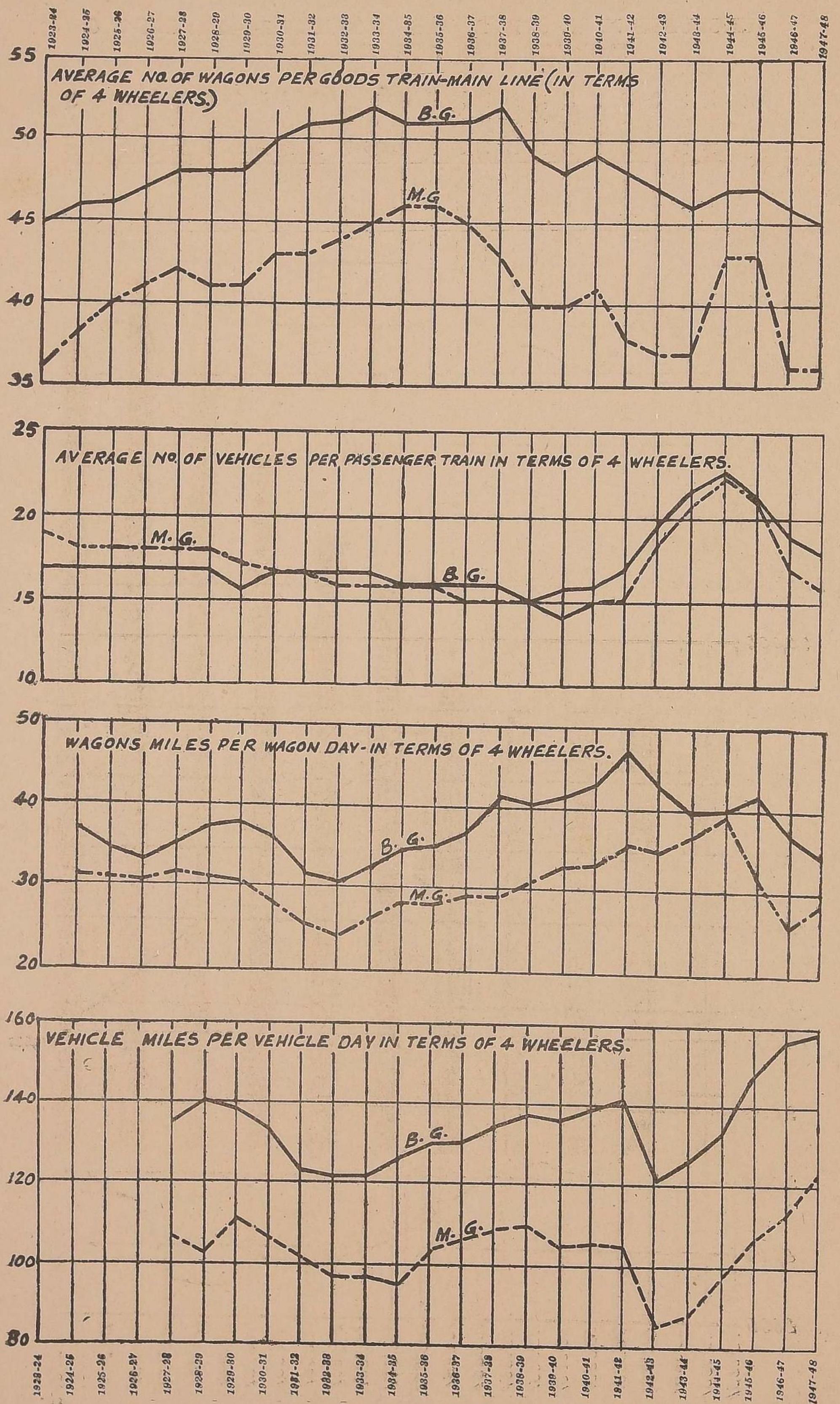
EXCLUDING BURMA RAILWAYS.

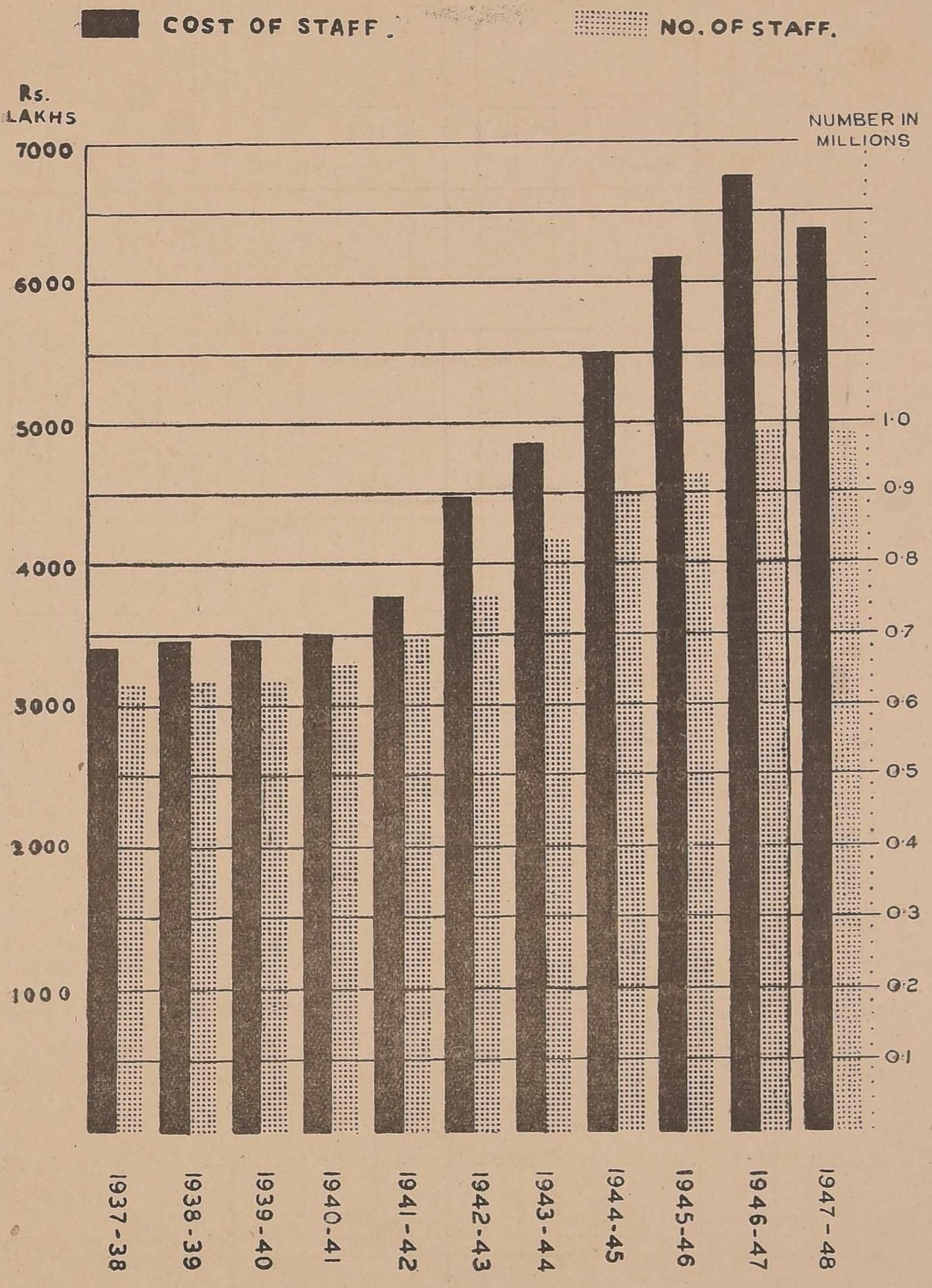
(EXCLUDES N. W. & B. A. RYS. BETWEEN 1-4-47 & 14-8-47 & THE PAKISTAN RYS. THEREAFTER.)



CLASS I RAILWAYS

(EXCLUDES N. W. & B. A. RYS. BETWEEN 1-4-47 & 14-8-47 & THE PAKISTAN RYS. THEREAFTER.)



TOTAL NUMBER AND COST OF STAFF ON INDIAN GOVERNMENT RAILWAYS

(EXCLUDES N. W. & B. A. RYS. BETWEEN 1-4-47 & 14-8-47 & THE PAKISTAN RYS. THEREAFTER.)